

Social Forces

An International Journal of Social Research Associated with the Southern Sociological Society

- Rixon et al.* · Unions, Solidarity & Striking
Falleröd · What I Need and What the Poor Deserve
Grossman · Elites, Masses & Media Blacklists
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SF Volume 83: Number 1 September 2004

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SEPTEMBER 2004,
VOLUME 83, NUMBER 1

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ISSN 0037-7732 Library of Congress Catalog
Number 24-31023

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Periodicals postage paid at Chapel Hill, N.C. 27514 and additional mailing offices.

Postmaster: Send 3579 to *Social Forces*, UNC Press, P.O. Box 2288, Chapel Hill, NC 27515

Claims for undelivered copies must be made within the month following the regular month of publication. The publisher will supply missing copies when losses have been sustained in transit and when the reserve stock will permit.

Social Forces is issued quarterly: September, December, March, June.

Social Forces is published by the University of North Carolina Press for the Department of Sociology, University of North Carolina at Chapel Hill.

Rev. 7/04

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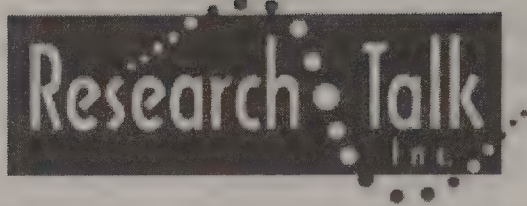
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Editor's Note*

JUDITH BLAU, *University of North Carolina at Chapel Hill*

This issue of *Social Forces* being the first under my editorship, I most especially want to thank Richard Simpson for his graciousness and kindness during the last year, while I was coeditor. During the past year, we had two serious training meetings — both martini luncheons at the Southern Seasons restaurant. Dick's motive, I believe, for selecting this informal, and "grown-up" (!) venue, was to reassure me that I qualified for the job. Meeting at the office would not have made such an impression on me. These are important shoes to fill. None that I know has the capacious knowledge of sociology and of social science that Dick Simpson does. He is a paragon in his commitment to scholarly excellence, professional ethics, and scientific integrity. I speak for both of us in thanking Margaret Gibbs, assistant to the editors, and Paul Mihas, managing editor. They helped us through the editorial transition and the introduction of new technologies in our office. We also thank the Southern Sociological Society for its helpful advisory and consultative role, and in particular, Cathy Zimmer, chair of the SSS Publication Committee. The members of the Society are our premier readers, all receiving a subscription to the Journal and I think of them as being our most loyal readers.

Technologies

We are in the process of adopting two technological capabilities — an electronic interface with authors and reviewers, and a web page for on-line posting and publication. We have adopted the software program, JournalTech, and currently using it to track manuscripts and for reviewers to submit their evaluations online, with the expectation that we will soon offer authors with the opportunity to submit their papers on-line. Two important features of our Web page will include a discussion page and a publications page. The first will serve the purpose of continuing discussions that are published in the journal in the section entitled "Commentary and Debate" or "Public Sociologies." (Section head will vary depending on the nature of the papers.) The articles in this section are solicited and will be exempt from double-blind reviewing.)

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Another second section of our web will be devoted to entries that we formally publish, and will be archived by Project Muse and JSTOR. These entries may include tables and appendices of papers that appear in the paper volume as well as reviewed articles that are not appropriate for one reason or another as paper publication. For example, lengthy papers are candidates for Web publication, and so are lengthy rejoinders. Web publication allows the Journal to be innovative and to respond flexibly to new developments in the social sciences, but this is a cautious experiment and we will go slowly.

Articles

Twelve articles are grouped as follows: Unions (Dixon, Roscigno, and Hodson); Standards for fairness and inequality (Halleröd); Suppression of dissent (Rossman); Social wage and direct investment (Alderson); Commodity chains (Schrack); Environmental pollution (Fisher and Freudenburg); Absentee management and plant pollution (Grant, Jones, and Trautner); International science (Schofer); Capital punishment (Jacobs); Bilingualism (Linton); Adolescent networks (South and Haynie); Delinquency and networks (Kreager). Also featured in this issue, under the section, "Public Sociology," is a paper by Rodríguez entitled, "A 'Long Walk to Freedom,' and Democracy," which is based on a paper presented at the 2004 meetings of the Southern Sociological Society, and a response by Iyall-Smith.

Finally, I wish to add that I believe that intellectual life has never been as exciting as it is now, and this is reflected in the quality and diversity of the papers that come across my desk. My thanks to the authors who send us their high-quality work, but most of all, to the reviewers who devote generously and unselfishly of their time to give their wisdom, advice, suggestions, and their praise to the work of their colleagues.

Unions, Solidarity, and Striking*

MARC DIXON, *Ohio State University*

VINCENT J. ROSCIGNO, *Ohio State University*

RANDY HODSON, *Ohio State University*

Abstract

Organizational resources and group solidarity are central foci in literature on social movements generally and worker insurgency specifically. Research, however, seldom deals with both simultaneously and their potential interrelations. In this article, we examine the complex relationships between union organization and worker solidarity relative to strike action. We draw on a data set of 133 content-coded workplace ethnographies and use a combination of qualitative comparative analysis and more standard statistical techniques. Consistent with expectations, results suggest union presence and worker solidarity, in and of themselves, have little meaningful association with strikes. Rather, it is their co-presence that bolsters strike likelihood. Conversely, a lack of union presence in combination with a lack of collective mobilization history diminishes overall strike potential. We conclude by discussing the implications of our argument and findings for more general social movement perspectives as well as prior work dealing specifically with unions, solidarity, and collective resistance.

The relative importance attributed to organizational resources, on the one hand, and collective identity processes and related cultural, emotional, and cognitive dynamics, on the other, represent somewhat distinct approaches to understanding social movement emergence and success (see Jenkins 1983; Polletta & Jasper 2001; Taylor & Whittier 1992). Although few would argue with the point that both organizational resources and internal activist solidarity are necessary, little research explicitly considers their joint impact. This may be a function of theoretical and, thus, empirical prioritization — prioritization, in the case of resource mobilization theorists, on organizational presence and

* We are grateful for the helpful comments and suggestions of the editor and anonymous reviewers of *Social Forces*. Direct correspondence to Marc Dixon, Department of Sociology, 300 Bricker Hall, Ohio State University, Columbus, OH 43210. E-mail: dixon.183@osu.edu.

organizational resource variations in relation to movement emergence, trajectory, and success, usually analyzed across some population of mobilization drives. For identity theorists, in contrast, the focus tends to be on interpersonal connections, loyalties, and collective boundaries, typically highlighted through historical or ethnographic single-case designs.

The study of labor insurgency, and when and why it may emerge, witnesses a similar tendency. A considerable body of work, for example, suggests that union organization is key and may either increase the mobilization potential of workers (Cornfield 1985; McCammon 1994) or pose a debilitating, if not stifling, effect on rank-and-file activism (Aronowitz 1973; Brecher 1997; Piven & Cloward 1979). Other work argues that interactional solidarity processes and oppositional cultural formation more proximate to the workplace itself may be just as meaningful. This conclusion is typically rooted in historically grounded case analyses of worker contestation (Fantasia 1988; Roscigno & Danaher 2001) and studies of workplace transition and worker response (Hodson 1998; Vallas 1987, 2003).

Most social movement and labor research acknowledges, or at least assumes, that social movement organizations and activist solidarity are not mutually exclusive. To be sure, social movement organizations, including those that are worker-based, must tap into preexisting identity and solidarity in order to foster the large-scale “bloc recruitment” of activists (see especially Oberschall 1973). Conversely, solidarity itself may be forged, or at least fortified, by the presence of organizational leadership, resources, and institutionalization (Taylor 1989). Such conditional relations, however, have received only limited empirical attention (for some exceptions, see Kimeldorf 1999; Rubin, Griffin & Wallace 1983). We suspect that this is partially due to theoretical prioritization and corresponding analytic use of either large data sets on organizational presence and activism or case-oriented and historically grounded accounts — accounts that more effectively delineate solidarity and identity processes but that arguably lack comparative leverage. Given these tendencies, and a more general selection bias in social movement research toward studying successful mobilizations where ample organizational backing and internal solidarity among activists are likely to begin with, most research has been unable to speak confidently about organization and solidarity, their interplay, and the consequences for mobilization.

In this article, we extend the literature by examining the complex and potentially conditional union-solidarity relationship and its relation to workplace strike action. We begin by providing an overview of research on social movement organizations and collective identity and then highlight how theoretical insights derived from these literatures can be useful for analyzing worker protest. The integration of social movement perspectives and grounded sociohistorical accounts of labor mobilization leads to our expectation that unions may facilitate strike activity, but only to the extent that they build on solidarities already realized by workers on the shop floor. Data are drawn from

133 content-coded workplace ethnographies, including workplaces witnessing strike mobilization and those not witnessing it, and our analyses employ a combination of qualitative comparative analysis techniques and more conventional quantitative methods.

Social Movement Organizations and Collective Identity

Research on social movement organizations (SMOs) and collective identity offers alternative starting points for understanding collective resistance. Work on SMOs, typically grounded in the resource mobilization tradition, emphasizes the importance of organizational structure and resources for movement emergence and success (Jenkins 1983). The coordination of any extensive protest activity, it is suggested, requires at least a minimal level of organization and resources for recruitment, the dissemination of information, and the mobilization of activists. Classic literature in this tradition (e.g., McCarthy & Zald 1973, 1977) argues that formal SMOs will be especially effective in these regards, at least relative to loosely structured, decentralized entities. Formal SMOs can better maintain movement activity in unfavorable environments and in a manner that can facilitate protest activities (Clemens 1996; Staggenborg 1988; Voss & Sherman 2000). The most straightforward implication for worker activism, given these insights, is that a union presence and the infrastructure it affords will be important for collective action and crucial for any extensive mobilization.

Less clear is the role played by group solidarity. Rather than explicitly theorizing how activist solidarity and consciousness are created or galvanized, accounts emphasizing SMOs typically assume that activist interactional processes and social networks are important parts of social movement mobilizing structures (e.g., McAdam, McCarthy & Zald 1996). Partially in response, collective identity theorists have shifted the analytic focus to the normative and cultural processes that generate individual participation and group solidarity in the first place (Gamson 1995; Melucci 1985; Taylor & Whittier 1992). The suggestion here is that protest emergence and persistence hinge on a sense of groupness and a common interpretive framework among activists. Identity construction processes that build on the day-to-day experiences and shared grievances of potential activists are especially central.

Insights on the role of SMOs and identity have been applied to a wide array of social movements, old and new (Klandermans & de Weerd 2000), and are pertinent for understanding labor activism. Indeed, much of the research on worker insurgency has been union-centered, with the assumption that the resources, leadership, and leverage that unions bring to bear will bolster workers' power and capacity to demand change through formal and informal, collective channels (e.g., Ashenfelter & Johnson 1969; Edwards 1996; Rubin

1986). Alternatively, the focus on collective identity resonates with both general theoretical discussions (e.g., Della Fave 1980; Giddens 1982; Mann 1973) and historically grounded research on class consciousness, solidarity, and worker action (e.g., Gould 1995; Kimeldorf 1999; Roscigno & Danaher 2001; Southworth & Stepan-Norris 2003).

There is good theoretical reason to suggest that organizational and identity foci can and should be synthesized. First, as noted by Oberschall (1973, 1993), to successfully “bloc recruit” and mobilize on a large scale, social movement organizations must tap into *preexisting* networks of individuals who share common life experiences and social identities. Second, and within the context of SMOs trying to recruit or mobilize, goal-directed decision making and rational calculations among individuals about whether to participate are filtered through, if not fundamentally weighted by, friendship networks, group affiliations, and prior experiences (Dixon & Roscigno 2003; Oberschall 1994; see also Blau 1964; Huber 1997). Consequently, frames introduced by SMOs themselves must resonate with the lived grievances and already established identities of prospective participants. According to Snow and McAdam (2000), it is precisely this interplay of solidarity and organizational processes that is crucial for the unfolding of movement activity (see also Polletta & Jasper 2001).

The Case of Unions and Worker Solidarity

Empirical evidence suggests that unions, like social movement organizations in general, have a positive and significant influence on worker mobilization. Workers in highly organized industries are more likely to engage in militant action (Cornfield 1985, 1991; Wallace, Griffin & Rubin 1989), due in part to the organizational capacity of unions and the resources they provide (McCammon 1990, 1994; Rubin 1986). Rubin, Griffin, and Wallace (1983) offer one of the more thorough empirical examinations of the union-insurgency dynamic, concluding that labor organization indeed fostered worker militancy during certain eras. Simultaneously, they add, widespread strike activity increased labor organization. Strikes were thus “both the causes and effects of mobilized resources” (Rubin, Griffin & Wallace 1983:341). This work is notable in attempting to disentangle the complex relationships between formal organization and labor militancy. Labor research in recent years, however, has failed to follow through on this important question (but see Kimeldorf 1999).

That unions are necessary for work-based collective action is either implicitly or explicitly noted in much of the labor research. Worker identity and solidarity, in contrast, tend to be either neglected or treated as nonproblematic. The exception is a relatively small body of work denoting the importance, if not necessity, of grievance interpretation, interaction, and ultimately solidarity processes among workers — processes that are complex, often emergent in the

workplace itself, and shaped by lived experiences. For Fantasia (1988), worker solidarity and militancy are not likely to be driven by unions, but rather will emerge out of conflict in the workplace, more indigenous worker strategies and practices, and “active work-group social relationships” (108; see also Roscigno & Hodson 2004). Such relations could range from mundane cooperative strategies to heated confrontations with supervisors, all of which may serve to create a “collective identity separate from management” and lay the groundwork for collective action (Hodson et al. 1993:399; Vallas 2003).

Historically grounded analyses of labor mobilization concur on these points. Kimeldorf’s (1999) study of longshoremen and restaurant and hotel workers on the East Coast in the early 1900s reveals that industrial unrest unfolded in accord with worker grievances and strategies that were formulated proximate to the point of production, rather than being fostered by the political or organizational character of unions. In a similar vein, Roscigno and Danaher’s (2001) recent analysis of southern textile strikes during the 1930s shows how considerable mobilization occurred with little or, at best, limited union organization. Rather, worker solidarity and ultimately mobilization were bolstered largely by indigenous strategies and cultural practices that denoted common constraints and grievances (e.g., paternalism, work hours).

The interplay of unions and solidarity is undoubtedly complex and variable across time, place, and particular form of labor organization. The history of a given workplace, and variations across workplaces in worker grievances themselves, for instance, may be influential for the likelihood of activism above and beyond union presence and worker consciousness (Hodson 1997; Kimeldorf 1985; Wellman 1995). In this regard, we view grievances and the formation of a critical consciousness and solidarity at a given workplace as intuitively linked, although by no means perfectly overlapping.¹ Moreover, unions themselves are not monolithic in terms of practices, strategies, and willingness to support contentious activity. Differences between craft and industrial unions, for instance, are especially important given historical variations in organizing logics, mobilizing tactics, ideology, and social composition (Cornfield 1991; Freeman & Medoff 1984).

Our assessment and predictions, rather than prioritizing unions over solidarity or vice versa, suggest the possibility of a mutually reinforcing interplay between the two — an interplay sometimes implied (albeit rarely tested) in the social movement literature and that draws from insights provided by both union-centered and historically grounded studies of worker action. Some recent work (e.g., Hodson 1997) has begun to address this possibility, noting how unions would do well to tap into informal practices of resistance in the workplace. But under what conditions might union presence and worker solidarity align in a manner that evokes collective response?

Union-Solidarity Convergence and Interplay

Serious consideration of labor activism requires attention not only to the independent influence of union infrastructure and workplace solidarity dynamics but also to their joint and potentially contingent impact. Here we draw both from social movement theory that attempts to fuse these theoretical foci and discuss specifically how union organization and shop-floor solidarity processes may align to influence worker action. We also denote specific attributes of unions and worker interaction that will arguably be most influential.

Organizational perspectives typically associate protest strategies and the decision to mobilize with rational calculations, whereas other perspectives have noted the importance of noninstrumental criteria (see, e.g., Oberschall 1973). In the first case, workers likely contemplate the extent of union organization behind them and their relative leverage in the employment relationship before engaging in a risky job-related collective action (Cornfield 1985). Alternatively, workers may pursue strategies that agree with their views of the workplace, each other, and the employment relationship. In fact, such decisions may develop in accord with a collective identity that is associated with a particular tactic or legacy of work-based collective action rather than with the contemporary presence of a union (Jasper 1997; Polletta & Jasper 2001). Decision making, albeit complex, may nevertheless converge as union organizations come to embody actions that are consistent with practices on the shop floor (Klandermans & de Weerd 2000). Unions and social movement organizations may opt to pursue, or at least endorse, tactics that conform to their members' experiences (Morris 1984; Reese & Newcombe 2003). Scholarship on the early American labor movement illustrates this point clearly. Certain forms of labor organization not only shaped the way workers adopted and selected new strategies, but they also yielded greater mobilization potential when their messages resonated with already established cultural practices and solidarities of workers themselves (Babb 1996; Clemens 1996; Voss 1993).

Especially relevant to our argument, Kimeldorf (1999) illustrates how the American Federation of Labor and Industrial Workers of the World — labor organizations at opposite ends of the political spectrum — eventually moved toward similar syndicalist paths of direct, militant action because such action was more consistent with workers' experiences. The experience of coal miners in the U.S. during the early twentieth century is another instructive historical example. In forging a repertoire of militant collective action, largely necessitated by their precarious employment relationship, miners forced even the most autocratic union leadership to support their practices and eventually to embody this type of militancy (Brueggemann & Boswell 1998; Dubofsky & Van Tine 1977).

The examples above illustrate the potential for a convergence between union infrastructure and internal solidarity dynamics, although nuances of this interplay are seldom made explicit. Particularly important, we suspect, is the

type of union organization. As suggested earlier, craft and industrial unions have differed considerably in terms of inclusive and exclusive organizing logics (Freeman & Medoff 1984). Craft unionism is often associated with exclusive tactics, conservative political ideologies, and relatively small, skilled, and racially homogenous work groups. Industrial union organization, in contrast, has tended to rely on inclusive organizing and mass mobilization strategies to prevent being undercut in wages. Labor organization is thus not monolithic, and, as such, industrial and craft unions may be better conceptualized as distinct types of SMOs with unique implications for worker action (see Cornfield 1991). Although both have certainly exhibited the potential to stifle as well as facilitate insurgency (Form 1985; Lichtenstein 1980, 2001), analyzing the interplay of union type and shop-floor solidarity, which we do in our analyses, may shed light on its relationship to mobilization.

As important as specifying forms of union organization and their potential impact is a clear conceptualization of solidarity and how it may play out in workplaces. Solidarity on the shop floor likely entails social attachments among workers and a recognition of group boundaries, or a sense of “us” and “them” — something collective identity theorists view as crucial for protest (e.g., Taylor & Whittier 1992). Such relations, we believe, are key foundations for collective action, to be drawn on and activated at critical junctures. Solidarity is also an important resource for unions to tap into. Although unions may help forge solidarity through the framing of appeals and historical struggles, recent work has begun to suggest that solidarity (or solidarity potential) may be established *a priori* by activities at the point of production, including activities outside those prescribed by formalized union procedures (Jermier, Knights & Nord 1994). These activities might include cooperative, group-building practices, grievance sharing within work units, as well as contentious encounters with management that may alter employee perceptions of the workplace, fairness, and justice (Dixon & Roscigno 2003; Vallas 2003).

Worker solidarity on the shop floor and practices of resistance are by nature subterranean and difficult to measure. Understandably, then, they are rarely incorporated into quantitative analyses of worker activism (Fantasia 1988; Hodson 1998). Especially important relative to empirically capturing solidarity is the extent to which workers defend one another in the face of authority or abuse. Workers confronting management in defense of their peers indeed represents a challenge to employer prerogatives. Without internal leadership, however, solidarity will likely lead to sporadic and short-lived mobilization. In this regard, most sustained social movement activity, particularly at the micro level, is marked by a core group of activists who are crucial for invoking others' participation (Marwell & Oliver 1993). This is no less important for labor mobilization and the coordination of worker protest (Fantasia 1988; Morris & Clawson 2002). For indigenous resistance practices to take hold and foster mobilization, both mutual defense and internal leadership dimensions of worker solidarity will be important.

Workers may engage in direct action based on available organization, resources, and leverage in the employment relationship (union-centered action). They may also engage in protest because it resonates with their shared experiences and in some instances with a legacy of collective action (solidarity-centered action). More likely, though, a *convergence* between organizational resources and worker solidarity is key. Acknowledging the possibility of variation across craft and industrial union types, we suggest that the alignment of both union organization and significant worker solidarity will have the most pronounced impact on strike potential. We should note that this predication does not dismiss the importance of grievances or certain dimensions of political opportunity for worker mobilization (Cornfield & Kim 1994; Tarrow 1998; Wallace, Griffin & Rubin 1989). Our modeling strategy takes such factors into account. Our primary focus and contribution, however, lies in disentangling a conditional relationship between SMOs and identity (or unions and solidarity, in our specific case) implied in much labor and social movement literature but seldom empirically explored.

Data

We use data derived from the systematic coding of selected English-language, book-length workplace ethnographies pertaining to the U.S. and England ($N = 133$). These data provide comparative leverage relative to single-case analyses by providing data on shop-floor solidarity processes within both union and nonunion contexts. And, relative to organizational-level studies of social movement emergence and participation, we have the benefit of grounded ethnographic observation of identity and solidarity processes as they are played out at a proximate (i.e., workplace) level. Such data have become an increasingly important resource for social scientists (Hammersley 1997; Hodson 1998) and are appropriate for our analyses given the dual and simultaneous focus on unions and solidarity.

On average, each ethnography is based on more than a year in the field and at least as much time spent on analyses and writing. Ethnographies selected were chosen in a two-phase procedure that involved examining thousands of published case studies. First, titles were generated through computer searches, existing bibliographies of ethnographies, interlibrary loan, and scans of the library shelves in the immediate area of previously identified ethnographies. Cases that relied primarily on archival or survey data rather than on direct observation were excluded. Iteratively applying these search procedures resulted in an exhaustive search; eventually our pursuit of new leads produced only titles already considered. The criteria for inclusion in the final pool were (1) the use of direct ethnographic methods of observation over a period of at least six months, (2) a focus on a single

organizational setting, and (3) a focus on at least one clearly identified group of workers — an assembly line, a typing pool, a task group, or some other identifiable work group.

Application of the above criteria generated 133 cases. These constitute the population of published book-length, English-language ethnographies pertaining to the U.S. and England that focus on an identifiable work group in a single organization. Generalization from these data to the population of all organizations must be made with some caution, however, as the cases analyzed do not necessarily reflect a representative sample of all organizations. Rather, the data represent the population of available ethnographic evidence on organizations, and conclusions from the analyses must be interpreted in that light. The data nonetheless provide considerable variation across industry and occupation (see Table 1), as well as union presence, union type, worker solidarity, and strike occurrence. We are thus confident in the utility of these data and the empirical leverage they provide.

Coders of the ethnographies were trained on a common ethnography and met twice weekly as a group to discuss problems and questions. They were instructed to look for behavioral indicators or specific descriptions for each variable coded and not to rely on ethnographers' summary statements or evaluations (Weber 1990). After completing a book, the primary coder was debriefed by a member of the research staff to check the accuracy of the codings. At this time, the codings were reviewed in detail. One book was selected as a reliability check and coded independently by three reviewers. The correlations between these different codings indicate a relatively high degree of reliability (average intercorrelation = .79). Validity checks indicate that the ethnographies evidence no distinct patterns of findings based on theoretical orientation or other ethnographer characteristics.²

STRIKING

Unlike most social movement analyses, which tend to focus on cases where mobilization is present, our data provide cases where mobilization did and did not occur. Specifically, we examine whether or not a strike occurred in a given work setting during the period of ethnographic observation. Striking remains an important form of worker protest and is a highly visible component of interclass conflict. Of the 133 cases, approximately 15% ($N = 21$) experienced a strike during the observation period.

UNIONS AND SOLIDARITY

The use of qualitative comparative analysis (discussed below) requires us to focus on a limited number of independent variables that are directly related to our theoretical concerns. Thus, we restrict our key measures to those pertaining to union organization, internal solidarity dynamics, and a legacy of

TABLE 1: Distribution of Ethnographies, by Industry and Occupation

Industry	Percentage		Occupation	Percentage	
Extractive	5.3	(7)	Professional	19.5	(26)
Construction	2.2	(3)	Managerial	7.5	(10)
Nondurable foods	4.8	(6)	Clerical	6	(8)
Textile products	2.2	(3)	Sales	4.5	(6)
Paper production	2.2	(3)	Skilled	10.5	(14)
Chemical production	5.3	(7)	Assembly	25.6	(34)
Lumber and wood products	1.5	(2)	Unskilled	8.3	(11)
Metal products	3.9	(5)	Service	15	(20)
Machinery/electrical products	7.0	(9)	Farm	3	(4)
Transportation equipment	8.3	(11)			
Professional equipment	3.8	(5)			
Transportation/communications and other public services	9.8	(13)			
Retail trade	9.2	(12)			
Finance/insurance/real estate	8.3	(11)			
Business and repair services	1.5	(2)			
Personal services	6.1	(8)			
Professional and related services	15.8	(21)			
Public administration	3.8	(5)			
(N = 133)					

Note: Number of cases are in parentheses.

workplace activism. Table 2 reports descriptions and measurement of these key explanatory variables and our strike measure.

Social movement organizational and union-centered perspectives suggest that union organization will be essential for strike activity. About half the work settings examined here are unionized. We differentiate between industrial ($N = 51$) and craft ($N = 16$) unions, which have historically differed in terms of ideology, tactics, and inclusiveness.³

Consistent with our earlier discussion, we include two key components of workplace solidarity. Mutual defense captures group conflict with management over the sanctioning of other workers and is one of the most visible forms and indicators of internal solidarity (Hodson et al. 1993). Workers acting collectively in defense of another employee highlights group boundaries between employees and management and may provide a precedent for collective action (Klandermans & de Weerd 2000). Approximately 58% of the workplaces ($N = 78$) exhibit average to strong levels of mutual defense.⁴ The absence of such defense and its consequences for solidarity generally are provided by Gouldner's (1954) classic work on a gypsum board factory:

There was a break-down at the wet-end today. The older men scurry all over. The younger men *relax* and *make jokes*. They lean across the board machine

TABLE 2: Variable Descriptions, Coding, and Means

Variable	Description	Coding	Mean
<i>Dependent variable</i>			
Striking	Strike occurred during period of observation.	0 = no strike occurred 1 = strike occurred	.15
<i>Union measures</i>			
Industrial (INDUSTRIAL)	Workplace has industrial or combined union.	0 = no union or craft union 1 = industrial union	.38
Craft (CRAFT)	Workplace has craft union.	0 = no union or industrial union 1 = craft union	.12
<i>Solidarity</i>			
Mutual defense (SOLIDARITY)	Workers stand up for each other against other groups, customers, or management. A work group exhibits average mutual defense if group support is forthcoming in many situations and strong defense if group members are willing to place themselves at risk to defend other group members.	0 = little or none 1 = average or strong	.58
Work-group leadership (LEADERSHIP)	Work-group leadership exists that is independent of management. Average leadership means that there is an identifiable group leader, and strong leadership indicates that leadership is strongly evidenced on a regular basis.	0 = little or none 1 = average or strong	.35
<i>Legacy of collective action</i>			
Strike history (HISTORY)	Workplace has frequent history of strikes, indicated by multiple strikes occurring prior to period of observation.	0 = none or infrequent 1 = frequent	.12

and *talk with each other* in clusters. The foremen, though, work hard. One of the younger men *jokingly* pushes the button that lets loose a sharp whistle against the flat blast of the emergency buzzer. A foreman hustles down from the mixer. He asks, "Who done it?" One of the youths swiftly points an accusing finger at the chubby lad who is talking to him.

The above observations reveal several things already noted: The tense relations between supervisors and workers, and the low degree of informal solidarity and readiness to “squeal” among surface workers. Most relevantly, however, there was the suggestion that energetic and cooperative work efforts on the surface were not even brought about by an emergency situation. (140)

Along with mutual defense, we also include indigenous work-group leadership. Without such leadership, solidarity will likely be limited to sporadic episodes. This component, which usually emerges in conflict with management, provides a base for more lasting collective action, identity building, and, potentially, strike activity (Fantasia 1988; Morris & Clawson 2002). Average or strong group leadership is present in just over 35% of the workplaces ($N = 47$). An example of group leadership is provided by an ethnography of a Japanese transplant automobile factory in the U.S. Two women, one of whom has a medical appointment, decline unscheduled overtime with the understanding that doing so is their prerogative. Management responds by saying that leaving at the end of the regular shift will be counted as an “unexcused absence” and that “anyone who leaves the line while it is moving is in jeopardy of being fired”:

At this juncture, our team leader made a surprising announcement, telling the car manager that she was also leaving in protest. He put immediate pressure on her, in front of the team, informing her that she was putting her job in jeopardy if she left. The women held their ground. Finally, when faced with the intended departure of four team members and the fact that this would shut the line down, management backed down. I suggested to the manager that if he agreed that no one would get an unexcused absence for leaving (at this time we did not even know what the ramifications were of an unexcused absence no policy had been established), [the team leader and another protester] would agree to stay. They accepted those terms. (Graham 1995:123-25)

STRIKE LEGACY

A legacy of collective action is also important when considering worker activism (Kimeldorf 1985; Wellman 1995). Past insurgency may be particularly meaningful for future action through the establishment of interpersonal and organizational networks (Minkoff 1997; Shin 1994), along with the forging of oppositional frameworks, identity, and abeyance structures that can be explicitly activated at a later point (Taylor 1989; Van Dyke 1998). We use the strike history of a given workplace to examine this potential influence. While workers bring different backgrounds and histories of activism to the workplace, a history of conflict in a particular work setting is often shared informally across different cohorts of workers and may provide a basis for collective action. Approximately 12% ($N = 16$) of the workplaces have a legacy of frequent strike activity.

Analytic Strategy

We analyze configurations of union organization and worker solidarity using qualitative comparative analysis (QCA) techniques, based on Boolean logic (Ragin 1987), and supplement this with more conventional quantitative procedures. QCA forces the analyst to consider all possible combinations of theoretically proscribed causal factors and, with its comparative algorithmic logic, eliminates redundant and superfluous information. The benefits of QCA, which lie in its ability to specify configurations of variables that shape outcomes, are now being widely recognized in social science research.⁵

Although QCA is uniquely suited to addressing the theoretical arguments we are making, and especially the potential conditional relations described earlier, the method is not without certain limitations (e.g., see Abbott 2001; Hicks 1994b; Lieberman 2001). These include the restriction to a limited number of independent variables deemed theoretically important to the processes outlined. Rather than a weakness (in that an array of control variables cannot be included), we believe that the theoretical rigor required in selecting variables in the first place and the specification of potentially complex, conditional configurations outweighs the costs (see also Boswell & Brown 1999; Griffin et al. 1991; Ragin 2000).

A more serious limitation, in our view, is the typically deterministic character of QCA results. In common usage, results are often derived from a logical reduction of configurations that are positively related to the outcome. That is, configurations of variables are generated in relation to the outcome always being 1 (i.e., yes or present) and then reduced by the program by logically teasing out redundancy and irrelevant factors. Information on configurations that generate a negative (0) outcome on the dependent variable or that generate a contradictory outcome (where some cases in the configuration are 1 on the outcome of interest and other cases are 0) is often not presented or considered. This is unfortunate. Configurations associated with 1, 0, and contradiction represent the actual degree of variability in the population of interest. Acknowledging especially contradictory configurations and their associations with the dependent variable of interest can introduce probabilistic possibilities and interpretations into the typically restrictive QCA model. Ragin (2000) concurs on this point, suggesting the use of percentages, probabilities, and even t-tests showing how the prevalence of an outcome for a particular configuration differs from that of another group or from some predefined standard set by the researcher.

Our modeling takes these criticisms and suggestions to heart. Following applications of QCA to labor analyses (Brown & Boswell 1995; Griffin et al. 1991) and especially Roscigno and Hodson's (2004) recent use of QCA wherein they circumvent its deterministic limitations, we undertake a two-pronged multimethod strategy. First, we make use of QCA to reduce positive, negative, and contradictory configurations in the data. These configurations, reduced from the entire truth table (all observed configurations), denote nonredundant

organizational types that exist in our data. Once such configurations are generated and reduced in QCA, we rely on a second step where the configurations and their associations with strike occurrence are systematically analyzed using more conventional, quantitative methods. Specifically, we make proportional comparisons, using t-tests, between the distribution of outcomes for a given configuration relative to cases not captured by that configuration. We ask, simply, whether a given configuration of union and solidarity attributes is associated with strike occurrence and whether this association is significantly and statistically distinct from cases not captured by the configuration. For ease of interpretation, ratios of configuration percentages to nonconfiguration percentages on the dependent variable are used, with daggers denoting statistically significant effects (Table 3).⁶

Our combining of QCA's reductive logic and more quantitative comparative techniques is admittedly somewhat limited. It disallows the inclusion of an array of controls for workplace grievances or features of the social environment that, while not theoretically central to our argument, may also be influential for collective action. To address this problem, we reanalyze associations between key configurations and strike occurrence using logistic regression (Table 4). In these models, we include controls for grievances (i.e., pay and job satisfaction) as well as workplace racial composition, historical era, area unemployment, and England. Descriptions and coding for these controls are provided in Appendix A. Most of the indicators are straightforward and are drawn from prior work on labor conflict (e.g., Brown & Boswell 1995; Roscigno & Kimble 1995). The reader will note the two central aspects of job quality, or grievances, that we include in pay and satisfaction. These measures capture the extent to which employees are satisfied or dissatisfied and how well they are compensated (on average) across particular work settings, and thus may highlight cases that are more or less ripe for collective action.⁷ This modeling strategy allows us to hold key QCA configurations up to the scrutiny of controls typical of quantitative labor research. Consistent results across QCA and logistic models speak to the strength of our unique melding of QCA and quantitative techniques.⁸ Specifically, the robustness of positive union-solidarity associations with striking, even with controls accounted for, bolsters confidence that the patterns observed are not a mere function of workplace grievances or economic, temporal, or national context.

Results

Table 3 reports reduced QCA configurations and their associations with strike occurrence.⁹ Traditional QCA notation is used, with capital letters denoting the presence of a given attribute and lowercase letters indicating its absence. An asterisk indicates conjoined attributes. We also report the number of cases captured

TABLE 3: Reduced QCA Configurations and Variations in Strike Occurrence

Configuration	Total Cases	Percent of Strikes in Configuration	Ratio of Configuration Mean to Nonconfiguration Mean
INDUSTRIAL * SOLIDARITY	38	34.21	4.25 [†]
CRAFT * SOLIDARITY * LEADERSHIP	9	22.22	1.46
INDUSTRIAL * leadership	29	27.59	2.20
industrial * history	80	6.25	.21 [†]
craft * history	103	10.68	.32 [†]
(N = 133)			

Note: Daggers indicate a statistically significant difference between the configuration mean and the mean of cases not captured by the configuration ($p < .05$).

by a configuration, the average strike occurrence within the configuration, and the ratio of this mean to the mean for cases that do not share configurational attributes. Thus, a value above 1 denotes a positive association, and a value below 1 reflects a negative association.

Two configurations reported in Table 3 highlight the alignment of union organization and solidarity in relation to strike occurrence. The first configuration of attributes (INDUSTRIAL * SOLIDARITY) represents workplaces with industrial union presence and significant work-group solidarity, marked by mutual defense on the shop floor. Of the 38 cases that hold these conjoined attributes, just over 34% ($N = 13$) experienced a strike during the period of observation (well above the population average of 15.8%). The ratio of 4.25 indicates that these workplaces are four times more likely to experience strike activity relative to those without these configurational attributes. This difference is large and statistically significant under the .05 level.¹⁰

The joint influence of union organization and solidarity on collective action may unfold in a variety of ways, including the sometimes spontaneous and collective support of a coworker. Take, for instance, the following ethnographic account of a steel mill where a strike eventually unfolded:

The firing of Chico became a subject of more than usual comment in the plant. To the workers, the issue clearly became one of company reprisal against an active union man, not one of a worker assaulting a supervisor. Especially in the weld shop, where discipline was a perpetual problem, and few employees had escaped its net, the employees sensed that the firing of Chico placed them all in jeopardy, and they called a meeting of shopmen in defense of Chico (a rare move, not ordinary procedure in a unionized plant). . . . On an

unparliamentary motion from the self-elected chairman of the meeting, a collection was taken up "to help Chico pay his bills." (Spencer 1977:175)

The example above highlights a visible challenge to managerial prerogatives and helps establish a precedent for collective action among workers. Perhaps not an ordinary move in organized plants, this type of action may be possible in part because these workers have some organizational resources and backing behind them. Clearly, though, interpersonal connections and solidarity are also playing a role.

Episodes of collective support, resistance, and conflict may, in themselves, lay the groundwork for strike action by accentuating differences between workers and managers and by highlighting to workers a power that cannot be realized individually. Such is the case in the following account involving an electrical components factory — an industrial union, high-solidarity context where a strike eventually unfolded:

There was always an issue of how early we could start queuing at the clock at the end of the afternoon. It was supposed to be a couple of minutes before 4.15, but we usually inched slowly towards it from about 4.11, making sure Arthur Drury wasn't looking. You couldn't clock before the siren sounded at 4.15 or you'd be docked money. There were at least fifty of us on Sean Cooney's clock so the last one couldn't clock out until about 4.25.

On a later occasion, both supervisors decided on a concerted attempt to stop us queuing before the statutory time. They posted chargehands in front of the clocks to stop us getting anywhere near them. We got over that one though. . . . We knew pregnant women were allowed to stand at the front of the queue, so Maureen, who really was seven months pregnant, barged in between him and the clock, and the rest of us followed saying we were all pregnant. The packer at the end of our line who was rather fat, lifted up her skirt to show him her stomach and we all laughed at him. (Cavendish 1982:88-90)

Although the configuration of industrial unionism and worker solidarity clearly has the strongest positive association with striking, the reader will note a positive effect of craft unionism and solidarity as well in Table 3. The second configuration reported (CRAFT * SOLIDARITY * LEADERSHIP) captures workplaces with craft union presence and high degrees of both mutual defense and indigenous work-group leadership. Two of the nine cases that fit this pattern exhibit strike activity. Comparing this activity to workplaces that do not fit the configuration, we arrive at a ratio of 1.46, indicating a strike likelihood approximately one and a half times greater. This configuration, however, captures only a small number of cases. Understandably, then, the difference between cases falling into the configuration and those not falling into it does not reach statistical significance. It nonetheless provides substantive insight into how an alignment of organization and internal solidarity *can* work in craft

union settings. Here, the author of an ethnography on construction workers remarks on informal group leadership and work-group relationships that may facilitate collective action in this context:

There is a social system of leadership and groups based on the trades and the social roles on the project. Informal leaders emerge through reputations based on skills, knowledge, and personality. Channels of communication are established for work, social, and other matters. Social interaction takes place at work, during lunch time, and after work at the local bar or bowling alley. All of this activity builds group feeling, a sense of "us" and "they." (Applebaum 1981:196)

The importance of indigenous group leadership as a component of the craft union configuration, something we do not find with the industrial union configurations, may relate in part to the smaller and sometimes more autonomous work groups associated with this type of work and work organization. The implication is that relations between solidarity and related collective identity processes may themselves vary according to the particular organization of work and form of labor organization.

Configurations reported thus far have highlighted how worker solidarity may function to prompt collective resistance within, and varying by, distinct union contexts. The third configuration (INDUSTRIAL * leadership) provides an empirical instance where union organization in the absence of indigenous leadership appears to facilitate strike occurrence. This pattern, somewhat consistent with union-centered and social movement organization perspectives, captures just over 27% percent ($N = 8$) of the 29 workplaces sharing these attributes. The ratio is just over 2, although it is not statistically significant. It thus appears that in the absence of internal leadership (and without any conditional influence of work-group solidarity), industrial unions have a modest, positive association with strike occurrence. This finding suggests that unions, in and of themselves, through the resources they bring to bear, can effect worker mobilization in some circumstances. The following observation by a worker at a chemical plant is consistent with this possibility:

[Union] men will be fired only for blatant violations of company rules. The union contests every firing in arbitration, and the company knows it must build an overwhelming case to be successful. . . . Workers enjoy the independence provided by their job security. (Halle 1984:157)

Such union resources and backing clearly set the stage for more confrontational workplace politics, even in the absence of independent work-group leadership. The reader will note, however, that strike activity is less pronounced in such settings relative to those characterized by the convergence of industrial union presence and worker solidarity.

Workplaces that share the final two configurations are marked by the absence of a particular form of labor organization and little if any legacy of collective action. Both configurations suggest negative associations with strike

mobilization as well as potential depressant effects. In workplaces without either industrial union organization or strike history (industrial * history), we find only 6 of the 80 cases exhibiting strike activity. This is well below the strike occurrence average in the population of ethnographies. The analogous craft union configuration (craft * history) likewise shows limited strike mobilization compared to workplaces without these configurational attributes, and this difference is also significant below the .05 level. A legacy of collective action does not have any noticeable effect on worker protest, yet the absence of this attribute appears to be important. Workplaces without union presence and a legacy of collective mobilization are, on average, 70% to 80% less likely to experience strike activity.

Workers in settings without a strike history may still have collective grievances, but without any organizational backing or precedent for action, resistance strategies may be limited. Indeed, in such contexts, workers' frustrations are more likely to be vented individualistically by, for instance, quitting one's job, stealing from one's employer, or sabotaging production (Roscigno & Hodson 2004). The following passage from an ethnography of a nonunion wiring harness factory illustrates this point:

I was more than mildly upset. I had given extra notice so that I could train my replacement. But this move by Carroll not only prevented me from training someone, it penalized me (through extra duties) for trying to act responsibly. Both Mike and I protested. When I was called to the personnel office after coffeekbreak, I had a pretty good idea what was coming. I was told in a carefully phrased wording that "National was refusing the option of keeping me on during my two-week notice period." I was told to pick up my tools and leave at the end of the day. I had been fired. Everybody knew what had happened when I came back on the floor, and the first thing Mike did was go to Carroll's office and quit. . . . Probably all workers want to feel indispensable. . . . Both Mike and I felt that way as we sat in a bar across the street from the mill, proud of our courage, but embarrassed that we were both out of a job. (Juravich 1985:144)

Results reported thus far provide support for our initial contention that the convergence of union organization and worker solidarity will have the most pronounced implications for strike action. Yet our use of QCA restricts us to the inclusion of only the most theoretically relevant variables without the confidence afforded by multiple controls. We address this limitation by employing logistic regression in Table 4. The models estimate the influence of the statistically significant configurations found to be associated with striking, with the inclusion of potentially relevant control variables pertaining to workplace conditions and features in the broader social environment. Rather than using interaction terms in the traditional sense, we measure each configuration in these models as a dichotomous indicator of whether all configurational attributes are present

TABLE 4: Logistic Regression Estimates of Configurational Influence on the Likelihood of Strike Occurrence

	(1)	(2)	(3)	(4)
INDUSTRIAL* SOLIDARITY				1.804**
industrial* history			-1.936**	
craft* history		-1.133†		
<i>Controls</i>				
Job satisfaction	-.655**	-.630*	-.602*	-.687*
Pay	.144	-.029	-.608	-.042
Racial composition	.013	.009	.017†	.014
England	1.095†	1.047	.867	.861
Area unemployment	.852	.859	1.076†	.989
Historical era (referent: pre-1950)				
Middle period	-.350	-.560	-.747	-.717
Late period	-1.259†	-1.098	-1.162	-1.123
Constant	-.282	.954	.877	-2.821
(N = 133)				
† p < .10 * p < .05 ** p < .01 (one-tailed tests)				

(1 = yes; 0 = no). Along with allowing greater interpretative ease, this measurement strategy is consistent with the case-oriented focus outlined earlier.

Table 4 presents logistic regression estimates of the configurational influence on the likelihood of striking, controlling for work-group grievances in the form of job satisfaction and pay, racial composition, area unemployment, England, and historical era in which the ethnographic observation took place. The importance of grievances for worker activism has been well documented (Cornfield & Kim 1994; Roscigno & Danaher 2001). There may also be a broader national history and collective action legitimacy associated with workplaces in England that is meaningful above and beyond union presence and strike history at a particular workplace (Griffin et al. 1991; Kelly & Kelly 1991; Scruggs & Lange 2002). Racial composition may capture either the potential for split labor market dynamics to unfold and labor to become fragmented or the possibility of higher union and strike likelihood given the presence of minorities, who tend to be more inclined toward unions and collective action (Roscigno & Kimble 1995; Zingraff & Schulman 1984). If our configurational effects are being driven by workplace characteristics or other contextual factors, we can expect that they will not hold up with the inclusion of these controls.

Configuration findings generated with logistic regression are consistent with our prior results, even with the inclusion of controls. The joint influence

of industrial union organization and internal solidarity (INDUSTRIAL * SOLIDARITY) exhibits a positive and significant effect ($p < .01$) on the likelihood of strike occurrence, independent of workplace characteristics and social and environmental factors. Likewise, the two configurations marked by the lack of both a strike legacy and union presence continue to exhibit negative and statistically significant effects on strike occurrence. These findings generate further confidence in our strategy of first generating nonredundant configurations using QCA and then analyzing the associations with more traditional quantitative techniques.

Among the controls, workplace grievances in the form of satisfaction with working conditions is significant ($p < .01$) across all equations and exhibits the expected negative effect on strike occurrence, while pay does not appear to be meaningful for strike activity. This finding is generally consistent with research that links dissatisfaction with working conditions and labor activism (e.g., Cornfield & Kim 1994). Given the possibility that workplace grievances may be conditionally related to unions, solidarity, and striking, we added interaction terms between the grievance variables reported and each respective configuration in these logistic regression analyses. None proved significant. Moreover, correlations between grievance indicators and union organization and solidarity measures (see Appendix B) prove to be moderate at best. Thus, while certainly meaningful for collective action and labor activity, grievances do not negate or appear to conditionally influence the joint effect of unions and solidarity.¹¹

Although confident in our results and corresponding interpretations, we view our findings as tentative given that they are drawn from the population of available ethnographic evidence on organizations rather than from the population of all organizations. They nevertheless shed light on unions, interpersonal dynamics in the workplace, and their implications for militancy by utilizing rich, ethnographic insights within a comparative methodological framework. The quantitative retest of our findings further lends support to our contention that the convergence of union organization (most notably industrial unionism) and internal solidarity processes is most likely to facilitate collective action. Traditional quantitative modeling can complement and sometimes serve as a check on qualitative comparative approaches. Qualitative comparative approaches, in contrast, force us to think about cases rather than isolated effects of variables (Griffin et al. 1991). Maintaining the configurational logic of QCA while holding results up to the scrutiny of conventional controls found in the labor literature is, in our view, consistent with, and an extension of, long-standing attempts to combine case- and variable-oriented strategies (Ragin 1987).

Conclusion

Social movement and labor explanations of protest seldom empirically consider the joint influence of organization and organizational resources, on the one hand, and microlevel solidarity processes on the other. Divergent methodological and substantive approaches within these literatures have meant that the conditional and complex relationships between organization and solidarity, often assumed, are rarely tested. In this article, we extend both general social movement and more specific labor literatures by addressing the question of whether worker insurgency is driven by unions, more indigenous and internal solidarities, or their interplay. Analyses draw on unique data from content-coded workplace ethnographies. These data capture workplace relations across union and nonunion contexts and include both workplaces witnessing strike mobilization and those not experiencing such activity.

QCA findings as well as supplemental logistic regression results support our expectation that the joint influence of union organization and internal worker solidarity is most likely to facilitate collective action. The configuration leading to the greatest likelihood of strike activity combines industrial union organization with mutual defense solidarity on the shop floor. These factors appear to be strongly reinforcing, with union organization providing employees with a certain degree of leverage in the workplace and solidarity providing the foundation for collective response at critical moments. Where industrial unionism aligns with solidarity in the form of worker mutual defense, workers are more than four times as likely to strike.

Importantly, we do not find a strong and significant pattern associated with *only* union organization and striking or *only* internal solidarity and striking. Unions may, in some circumstances, be able to galvanize the necessary solidarity and action among workers without significant work-group microleadership, but the combination of these features appear to be most likely to facilitate collective action. Unions should indeed be more successful at forging activism in settings where workers are already connected interpersonally and stand up for one another in the face of abuse. Relative to the broader social movement literature, the convergence of SMOs and more proximate group identity and solidarity appears to matter most (Snow & McAdam 2000). Additionally, a legacy of collective action in the workplace does not appear to bolster striking in and of itself. Yet worker collective protest is dampened where there is no union organization and no legacy of collective action. Workers without organizational leverage or any historical precedent for militancy are unlikely to pursue collective responses to the employment relationship.

The various mechanisms by which union infrastructure and more indigenous processes jointly influence strike activity are complex and certainly warrant further systematic investigation. In this article, we have provided a theoretical rationale for such a convergence and illustrate its possibilities un-

der certain circumstances. We believe that our assessment of the interplay between organization and interactional processes among potential movement actors, and their joint influence on mobilization outcomes, extends recent efforts in the social movement literature to bridge collective identity and more structural features of collective action (Polletta & Jasper 2001; Reese & Newcombe 2003).

In light of contemporary employer mobilization against unions, capital flight, and the limited protections afforded by labor law, the strike has become an increasingly difficult tactic for workers and unions to draw on in struggles with management. It nevertheless remains important in the U.S. case, where upward of 200,000 workers still take part in strike events each year (Bureau of Labor Statistics 2002; Clawson & Clawson 1999). Moreover, and in concert with recent efforts to revitalize and reshape labor movements in response to adverse conditions, labor activism has accelerated across the globe over the last decade (Cornfield & McCammon 2003). Thus, labor unions, worker solidarity, and the place of militancy in combating abusive work practices and policies are more than artifacts of the past. Indeed, research is beginning to expand our understanding of the contemporary geography of labor struggles and unrest (e.g., Herod 2003; Silver 2003) and the ongoing relevance of worker collective resistance across time and place (Cowie 1999).

Analyzing just how unions and shop-floor solidarities align — the principal goal of this article — is thus of critical importance for understanding not only past but also contemporary and future labor conflict. The increasingly cross-national and cross-border character of labor struggles may complicate matters, especially given the requisite dimensions of worker solidarity and union presence highlighted in our analyses. We nevertheless suspect that further efforts at making the union-solidarity interplay explicit, and methodologically combining single-case, comparative, and more conventional quantitative designs to investigate these associations, will provide significant insights — insights that will benefit social scientists interested specifically in labor, social movement scholars generally, and perhaps even the labor movement itself.

Notes

1. For grievances to resonate collectively and shape group boundaries often requires shop floor experiences, group conflict, and ultimately worker interpretation that puts a malicious or greedy face on the suffering that workers are experiencing (Roscigno & Danaher 2001). Although the comparative analyses that follow cannot directly explore these complex interrelations for all 100-plus workplaces analyzed, we do introduce important grievance-centered indicators (i.e., pay and job satisfaction) and interactions to ensure that the union-solidarity patterns we uncover and present are not merely a function of workplace-specific grievances (Table 4). We also report correlations between

workplace grievances and our indicators of solidarity, unionization, and striking (Appendix 2), which prove to be moderate.

2. Because of the traditional focus of workplace studies on “factories,” the ethnographies overrepresent large industrial workplaces, including unionized workplaces. This selection is somewhat fortuitous for the current project because it allows us to study workplaces with a significant possibility of strikes relative to, for instance, service or clerical settings. Of course, the selection may make the analysis more relevant to these sorts of settings than to other workplaces. There is clearly a need for ethnographies that focus on a broader range of workplace settings — precisely the direction workplace ethnographers are moving (see Burawoy 1991).

3. Included in the industrial union category are nine combined or general unions that are not traditionally oriented toward organizing workers of one particular craft or industry (Cornfield 1991). This form of unionism, which has become more prevalent in recent decades, is a marked departure from craft unionism in terms of organizing logics and is thus included in the industrial category.

4. Mutual defense is coded as a work-group characteristic and pertains to the cluster of workers who were the primary focus of the ethnographer. For instance, this group might be comprised of employees in the work room in which the ethnographer did his or her primary observations. Thus, strikes per se did not constitute mutual defense in our coding. Also, we tried to code the *typical* level for a variable. For mutual defense, this meant mutual defense in ordinary working conditions, not in the special condition of a strike. Thus, we are reasonably confident that there is limited overlap between strikes and solidarity resulting from methods effects.

5. Recent articles using this method, for instance, have focused on wage policies and social welfare programs (Amenta & Halfmann 2000), the emergence of the social security system (Hicks 1994a), strikebreaking and split labor markets (Brown & Boswell 1995; Brueggemann & Boswell 1998), patterns of union growth and decline (Ebbinghaus & Visser 1999; Griffin et al. 1991), labor policies in southern textile mills (Coverdill, Finlay & Martin 1994), the success or failure of left-libertarian political parties (Redding & Viterna 1999), and the success or failure of mobilization drives among the homeless (Cress & Snow 2000).

6. A cost of our approach is that it is limited in making causal, as opposed to probabilistic, claims. It is for this reason that we do not use the typical QCA descriptive terminology of “necessary” or “sufficient” in our discussion or results. Nevertheless, since the degree of union presence and solidarity was likely intact prior to the observation of a strike, it seems reasonable to allow some causal interpretation. Moreover, our consistent findings even when retesting associations using logistic regression techniques bolster the likelihood that the associations we are describing are of the causal variety. Assuredly, though, any ultimate test of causal claims necessitates longitudinal data. Our QCA models also rely on dichotomous indicators of whether an attribute is present or absent, which some may view as limited with regard to capturing solidarity *processes*. The ethnographies themselves, however, as denoted in the quotes from which we draw, do provide us with some leverage for talking about the dynamic nature of what unfolds.

7. Our coding of satisfaction spans work settings with very low satisfaction, where few if any employees are happy (cases where employees may conclude that “all the jobs in this place are miserable”); average situations, where the experience of employees was not exceptional in one direction or the other or where a majority of employees expressed ambivalence toward the job; and job settings with very high satisfaction, where a majority of employees were glad to work for the particular employer, were treated respectfully, and often took pride in their work (Devinatz 1999:58). Pay, also coded from very low to very high, is a relative measure based on the area and industry standards in which the ethnographic research took place. Both indicators are average measures pertaining to the work group that was the primary focus of the ethnographer.

8. Conventional quantitative modeling can assess unique configurational combinations to a certain extent through the introduction of interaction effects, although the typical usage tends to focus on effects of individual variables rather than on cases that fall into some typology. And to adopt a full configurational approach in logistic regression would require a test of all possible interactional combinations, many of which may contain redundant information and some of which do not actually exist in the data.

9. If using traditional QCA procedures to identify configurations that *always* lead to zero, two configurations are generated: (1) industrial * history * solidarity and (2) craft * history * solidarity * LEADERSHIP. Both are relatively consistent with the negative configurations arrived at with our more probabilistic results and mark the absence of a particular form of labor organization in concert with the absence of solidarity and collective action. The latter configuration, however, is also marked by the presence of work-group leadership, indicating that significant leadership will not forge activism in and of itself. It would be problematic, however, to simply report and interpret configurations that always lead to a negative outcome. Indeed, such deterministic analyses and associated conclusions overlook contradictory and somewhat more probabilistic patterns in the full range of data.

10. The reader will note that the total number of cases captured by particular configurations in Table 2 do not add up to our sample size of 133, since these configurations are not mutually exclusive.

11. Like any collective action, strikes are complex and often influenced by a multitude of factors. For this reason, we experimented with many different controls in separate regression analyses, including establishment size and sex composition of the workforce, but these did not exhibit any significant effects and did not alter our findings. To further explore the role of grievances, we evaluated means comparisons of the grievance indicators across many of our key explanatory variables, which did not reveal any consistent pattern or lend support for a conditional relationship between grievances and our union-solidarity configurations.

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APPENDIX A: Descriptions, Coding, and Means for Controls Used in the Regression Analysis

Variable	Description	Coding	Mean
Job satisfaction	Work-group measure of average job satisfaction	1 = very low; 5 = very high	2.97
Pay	Work-group measure of pay relative to area or industry standards	1 = very low; 5 = very high	3.00
Racial composition	Percent minority in the work group	0-100	19.20
Area unemployment	High area unemployment	0 = medium or low; 1 = high	.24
England	Workplace located in England	0 = U.S.; 1 = England	.21
Historical era	Era in which ethnographic research took place (referent: pre-1950)		
Middle period	1950-69	0 = early or late; 1 = middle	.15
Late period	1970-present	0 = early or middle; 1 = late	.72

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APPENDIX B: Correlation Matrix of Variables Used in the Analyses

	Strike	Industrial	Craft	Solidarity	Leader-ship	History	Pay	Satisfac-tion	Race	Unemploy-ment	England	Middle Period	Late Period
Strike	1.000												
Industrial	.295	1.000											
Craft	.030	-.292	1.000										
Solidarity	.280	.254	.170	1.000									
Leadership	.111	.129	.210	.301	1.000								
History	.347	.374	.005	.217	.113	1.000							
Pay	.000	.233	.109	.115	.118	.196	1.000						
Satisfaction	-.225	-.085	.095	.069	.268	-.058	.355	1.000					
Race	.123	.015	.226	.016	.123	.018	-.114	-.150	1.000				
Unemployment	.239	.063	.116	.080	.025	.062	.000	-.121	.074	1.000			
England	.232	.162	.092	.097	.043	.149	.000	-.128	-.182	.313	1.000		
Middle period	.106	.187	.038	.225	.217	.362	.139	.128	-.093	.108	.299	1.000	
Late period	-.145	-.235	-.080	-.147	-.173	-.338	-.221	-.140	.096	-.082	-.173	-.678	1.000

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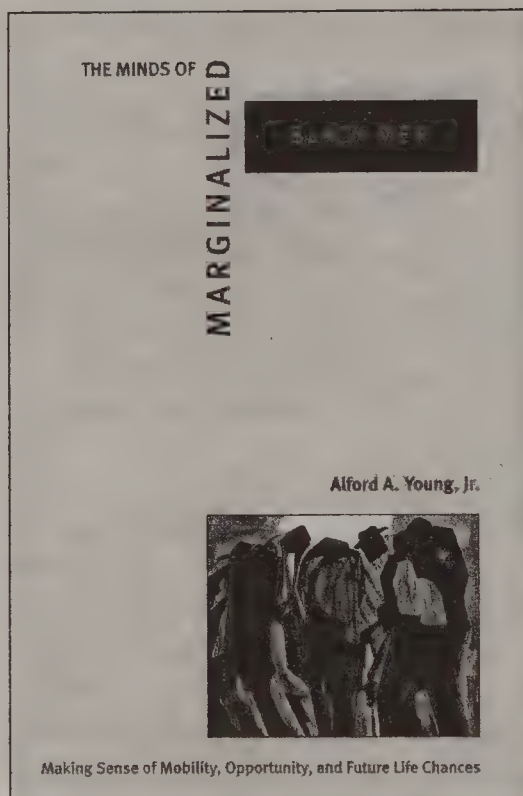
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What I Need and What the Poor Deserve: Analyzing the Gap between the Minimum Income Needed for Oneself and the View of an Adequate Norm for Social Assistance*

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Abstract

In this article, people's assessment of an adequate poverty line is contrasted against the minimum income they can accept for themselves. The analyses are related to theoretical assumptions about adaptation of preferences, risk exposure, and welfare-state attitudes. It is shown that adaptation of preference increases the "evaluation gap" between the two measures. Risk exposure generally does not lead to a more generous evaluation of the poverty line or to a narrower evaluation gap. Positive sentiments toward redistribution are connected with a generous assessment of the poverty line and a small evaluation gap. Those who believe that welfare benefits are misused have a restrictive view of both the poverty line and the minimum income they can accept for themselves.

Why should a relatively well off and seemingly financially secure person be willing to support the poor? It is presumably not because of an expectation that they will get the money back one day — poor people rarely have any money to give back. It could be because of a firm belief that resources should be redistributed so that everyone is guaranteed a decent standard of living. It might also be, as suggested by Mau (2002), that reciprocity is maintained via a behavioral response on the part of the receiver. Hence, in order to be prepared

** The Swedish Council for Working Life and Social Research has financially supported this research. Earlier versions of this article were presented at the Swedish Sociological Association's annual meeting in Örebro, 30–31 January 2003, and at the RC19 Annual Conference in Toronto, 21–24 August 2003. I am grateful to Janine Brodie, Mikael Hjerm, Kennet Nelson, Joachim Palme, Axel West-Pedersen, and anonymous reviewers for useful comments on earlier drafts. Direct correspondence to Björn Halleröd, Department of Sociology, Umeå University, 901 87 Umeå, Sweden. E-mail bjorn.hallerod@soc.umu.se.*

to give one should not believe that the recipient is misusing in one way or another what is given. It is intuitively easier to understand why a less well off and less economically secure person takes a generous stance with respect to support of the poor. The risk of ending up among the recipients of support is higher, as is also, presumably, the knowledge of the hardship that lack of economic resources brings about. Thus, being generous toward the poor appears as a rational response to a precarious situation (Baldwin 1990; Korpi 1978; Svallfors 1996). People's willingness to support the poor is an interesting and relevant topic in itself. However, another issue, which in some sense is even more profound from a sociological perspective, and that also relates to Rawlsian theory of justice (Rawls 1980), is the degree to which people are prepared to apply one yardstick when assessing what is an adequate income for the poor and another when they estimate what is an acceptable minimum income for themselves. That is, it is interesting to examine to what degree people allow for acceptance of dissimilar standards for different "kinds" of people, and thereby, in a broader perspective, tolerate a society with substantial income inequality.

The aim of this article is to shed light on the issues raised above and empirically study variations in people's perceptions of the minimum income they can accept for themselves, their views on an adequate standard for the poor, and, finally, the gap between the two, that is, to what degree people distance their own needs from the needs of the poor. The analyses are related to theoretical assumptions about adaptation of preferences, risk exposure, and welfare-state attitudes.

Theory and Hypothesis

Although there is an impressive body of welfare-state research, definitions of *welfare state* are rare, and those found are vague. Symptomatically, a welfare state is commonly understood as a state that in some way or another takes "responsibility for securing some basic modicum of welfare for its citizens" (Esping-Andersen 1991:18–19). Yes, but — Veit-Wilson (2000) rejoins — "how much and for whom, the rich or the poor, is to define the distinction between welfare and unwelfare states?" (5). Referring to the Rawlsian theory of justice, Veit-Wilson argues that a welfare state first and foremost takes care of those most in need and does not transfer resources upward, for example, from the poor to the middle class. This is not to say that a welfare state must take care only of the poor. A comprehensive safety net covering even those who are better off can, naturally, be combined with the provision of a decent standard of living for everyone. Empirical research has also shown repeatedly that countries offering extensive income security and welfare services to the middle class are also successful in providing a more decent living to the poor (Korpi & Palme

1998; Nelson 2003). However, it is definitely possible to imagine a state that transfers considerable resources and offers high quality services to most people but not to those most in need.

ATTITUDES AND RECIPROCITY

How can a welfare state that first and foremost takes care of the poor maintain its legitimacy and in the end remain politically viable? The basic wisdom is that eligibility rules should be simple and transparent (Rothstein 1994). This is the logic underlying general social-policy programs, which in turn is put forward as an explanation for why general programs often receive solid public support, whereas selective means-tested programs with complicated eligibility criteria are often mistrusted (Svallfors 1996). However, it is typically such means-tested programs that allow the state to guarantee a decent standard for everybody. The immediate problem is that most people contributing to such a benefit system cannot expect to get anything in return. Rawls's (1980) famous theoretical solution to this problem is to place the individual behind a "veil of ignorance." If those who make decisions about redistribution do not know whether these redistributions will end up among the poor or the rich, the chances increase that the decisions will be acceptable also for the poor. In relation to the issue dealt with here, it can be hypothesized that most people, under these circumstances, would judge an adequate norm for a last-resort income-security system, henceforth referred to as *poverty line*, to be equal to the minimum income they themselves need to make ends meet.

The problem in the "real" world is that most people probably do have, or at least think they have, a clear picture about the risk of becoming poor and generally estimate this risk to be close to zero. So why should they be willing to contribute to supporting the poor? Discussing this matter, Mau (2002) argues that "we have to shed light on the norms of social exchange, especially reciprocity norms" (2). Although most people expect never to be in need of any last-resort assistance, they will, presumably, back the system because they do expect certain behavior in return for such support. Recipients are supposed to meet the formal eligibility criteria, which is to say that fraud and misuse obviously clash with the norm of reciprocity. If we accept the extant eligibility criteria, we also accept that these criteria can be used to identify the deserving poor, who generally do what they can to support themselves but who nonetheless need help. Thus, legitimacy is connected with the degree to which the average citizen can trust that recipients of assistance fulfill vital conditions of reciprocity (Rothstein 1998). Concepts such as reciprocity, fraud, misuse, eligibility, and, not least, the notion of being able to support oneself are complicated and in need of conceptual clarification (Arneson 1997). In this context it is enough, however, to state that if the recipients of any benefit are believed to break the norm of reciprocity, the support for that benefit will

weaken and possibly dissolve. In line with this reasoning, it can further be hypothesized that those who are suspicious of the recipients of a benefit also have a relatively restrictive view of the amount that recipients should receive, not least because low benefits are often considered a way to minimize fraud and misuse.

It can be hypothesized that the more people think that transfer systems are misused, the less generous will be their view of the poverty line. Hence, the hypothesis is that lack of legitimacy harms the poor. It is harder to find any rationale for why attitudes related to lack of reciprocity should affect people's view of their own minimum income, which is therefore left as a purely empirical question. Even if we assume, however, that the relationship between attitudes toward misuse of transfers and one's own income minimum is nonexistent, it still holds that belief in misuse increases the gap between what one thinks is necessary for oneself and what is necessary for the poor.

Attitudes about misuse of various social-policy measures and, hence, mistrust of those claiming benefits do not constitute the only attitudinal dimension of importance here. General perceptions about the pros and cons of redistribution and inequality as such are also likely to be crucial. The hypothesis is that the more negative people are toward redistribution, the stricter their evaluation of the poverty line. It is also conceivable that attitudes toward redistribution affect assessment of the minimum income necessary for oneself. In the best of worlds, those in favor of redistribution of resources might be prepared to lower their own standard in order to help others. However, it might also be the case that positive sentiments toward redistribution are connected with high expectations for income — expectations that redistribution should help to fulfill. The hypothesis in this case is that a positive stance on redistribution should coincide with a high estimation of one's own minimum income. So, even if there is a relationship between attitudes toward redistribution and assessment of the minimum income needed for oneself, the nature of this relationship is not in any way given. Thus, it is likely that people who feel positive toward redistribution also hold a more generous view of the poverty line. It is consequently likely that positive sentiments toward redistribution of economic resources decrease the gap between what one thinks is necessary for oneself and what is necessary for the poor. It is furthermore possible to hypothesize that a combination of negative sentiments toward redistribution and strong beliefs about misuse lead to an even more restrictive view of the poverty line.

ADAPTATION OF PREFERENCES

The positive correlation between actual income and estimates of minimum household income has been firmly verified. The better off someone is, the more money she or he deems to be necessary to make ends meet (Halleröd 1995;

Saunders, Halleröd & Matheson; van den Bosch 2001). Theoretically this can be understood as adaptation of preferences to the actual pattern of consumption. Just as human beings tend to believe that they do not want what they cannot get (Elster 1983), they do want what is achievable, a propensity that can be seen as the perpetual motion machine behind consumerism (Bauman 1998). In relation to the theory of relative deprivation, it can be hypothesized that, when deeming what the minimal standard is for themselves, people consider what is necessary to maintain a position in their reference group (Crosby 1976; Runciman 1966; Simmel [1908] 1965). If the reference group includes the poor, the gap between one's own minimum income and the poverty line should be close to zero. But if the formation of reference groups follows the income distribution such that they are made up of a narrower group of people, sharing approximately the same economic conditions, the gap between the two evaluations will increase as income increases. However, it is also likely that the estimate of the poverty line will increase as income increases. In the U.S., the Gallup Poll taken between 1946 and 1986 asked the so-called "get along question": "What is the smallest amount of money a family of four needs each week to get along in this community?" The answer to this question, even though it does not refer to the respondent's own personal economy, does correlate positively with the respondent's own income (Rainwater 1974, 1990). However, the association is rather weak and income explains only a small fraction of the observed variation, a finding verified in a number of similar studies (see van den Bosch 2001). What these findings imply is that we can expect not only a positive relationship between actual income and estimations of one's own minimum income, but also that assessments of the poverty line will become more generous as actual income increases. However, it is likely that the impact of actual income is much weaker on the assessment of the poverty line and that the gap between one's own minimum income and the estimation of the poverty line therefore increases as actual income increases. This is in a sense a trivial hypothesis, in that it simply means that the richer people become the more they distance themselves from the poor. But the distance between oneself and "the other" is in a deeper sense a measure of the degree to which an unequal society will divide into different strata, which is not a trivial topic for analysis.

RISKS

The primary obligation of a welfare state is to safeguard people from carrying alone the burdens misfortune brings. Central to this argument is the notion that risks are unevenly distributed. The working class, for example, has historically experienced much more exposure to risks to both health and economic security and lack the necessary resources to mitigate the consequences (Baldwin 1990; Beck 1992; Svallfors 1996). It can therefore be posited that

those most exposed to risks such as unemployment and other economic problems should be most in favor of a generous poverty line. It can furthermore be argued that risk exposure is associated, for two reasons, with a tendency to locate the minimum income needed for oneself close to the poverty line: first, because people in risk situations face the possibility of actually being forced to make ends meet on that level; second, because risk exposure is often related to low income and, as discussed above, a low income is hypothesized to translate into a low estimation of one's own minimum income. Risk exposure should therefore decrease the difference between the minimum income needed for oneself and the estimation of the poverty line.

HYPOTHESES

Nine empirically testable hypotheses can be deduced from the discussion above. The first two relate to the reasoning about adaptation of preferences and the idea that the richer people become, the more they distance their own needs from the needs of the poor.

Hypothesis 1. Estimations of one's own minimum income and the poverty line will become more generous as actual income increases.

Hypothesis 2. The gap between one's own minimum income and the estimation of the poverty line will increase as actual income increases.

Hypotheses 3 and 4 are related to risk exposure. People who are — or who face the risk of being — exposed to economic hardship ought to have a generous view of the income that the poor should be guaranteed, at the same time as they ought to give a low estimation of the minimum income they themselves need to make ends meet.

Hypothesis 3. Exposure to risks (unemployment, economic hardship, etc.) leads to a relatively generous evaluation of the poverty line.

Hypothesis 4. Risk exposure decreases the difference between the minimum income needed for oneself and the estimation of the poverty line.

The remaining five hypotheses concern the relationship between welfare-state attitudes and the studied outcome, that is, the evaluation of the minimum income needed for oneself, an adequate income for the poor, and the gap between the two.

Hypothesis 5. The more people think that transfer systems are misused, the less generous their view of the poverty line.

Hypothesis 6. Belief in misuse increases the gap between what one thinks is necessary for oneself and what is necessary for the poor.

Hypothesis 7. The more positive that people are to redistribution, the more generous their view of the poverty line.

Hypothesis 8. Positive sentiments toward redistribution of economic resources decrease the gap between what one thinks is necessary for oneself and what one thinks is necessary for the poor.

Hypothesis 9. A combination of negative sentiments toward redistribution and strong beliefs about misuse will add extra force to a restrictive view of the poverty line.

The hypotheses will be tested with the help of a Swedish data set from 1998, which includes a wide range of information about living standards and socioeconomic conditions, with quite an extensive set of attitudinal data.

Data and Operationalizations

Data are from Statistics Sweden's annual Survey of Living Conditions (Undersökningen av Levandeförhållanden) from 1998 and are based on a random sample of the Swedish population aged 16 to 84. The random sample contains 7,400 individuals and the total working sample is 5,732, which gives a response rate of 77.5%. The 1998 ULF is unique because, in addition to the traditional questions about living conditions, it also includes a broad battery of attitudinal questions. The working sample is limited to respondents aged 20 to 74, because the attitudinal questions in ULF are not posed to respondents older than 74 and because most people younger than 20 have only vague ideas about the costs of running a household. Respondents living in their parental home have also been excluded from the working sample. The rationale is that they have little knowledge about the money needed for making ends meet, and, since income data are limited to their individual income, we do not know the household income. After these limitations, the working sample consists of 4,610 cases.

DEPENDENT VARIABLES

The so-called minimum-income question will be used to estimate what a person thinks is the lowest income her or his household needs to make ends meet. The question has been used in several surveys in a large number of countries, mainly with the aim of calculating a so-called subjective poverty line (compare Halleröd 1995; Saunders, Halleröd & Matheson; van den Bosch 2001). In the ULF, the minimum-income question is phrased in the following way:

What is, in your opinion, the very lowest net monthly income — that is, income after tax — that your household needs to make ends meet?

The important thing here is that the minimum-income question clearly refers to the respondent's own household.

The answer to the minimum-income question is in the analysis related to an evaluation of the norm for social assistance. Social assistance is a means-tested last resort benefit aimed at those who cannot support themselves in any other way, and it is the only program of this type within the Swedish welfare state. In 1998 somewhat more than 9% of all households and just over 7% of all individuals received social assistance on at least one occasion during the year. As it is, social assistance constitutes the “floor” of the Swedish welfare state, with the explicit purpose of securing a minimum economic standard for those who cannot support themselves in any other way. It follows then that the norm for social assistance can be seen as a *de facto* poverty line (Gustafsson 1984, 2000; Salonen 1993, 2000). Thus, when asked about an adequate norm for social assistance, one is also asked about the lowest acceptable income in today’s Sweden. The opinion about an adequate norm for social assistance is measured with the following question:¹

The National Board for Health and Welfare’s norm for social assistance for a household of two adults and two children is about d922 per month. The amount relates to what is left after taxes and housing costs are paid for. Do you think that the amount is

1. too high
2. too low
3. adequate

If they answered “too high” or “too low,” respondents were asked the follow-up question:

How much do you then think that such a family should have to live on after taxes and housing costs are paid for?

The wording of the question obviously leads the respondent to a specific answer, and a majority do state that they think d922 is an adequate amount.² However, a substantial number do not agree: 31.5% think the amount is too low, while 10.3% think it is too high. The fact that almost one-third of the Swedish population perceive the norm as being too low corresponds with earlier findings of Aguilar and Gustafsson (1988; see also Gustafsson 2002), who asked about an adequate norm for social assistance for various household types, but without first informing the respondents about the actual norm.

As the question makes clear, housing costs are not included in the norm for social assistance. A comparison between the minimum-income question and the assessment of the norm therefore requires that housing costs be estimated and added to the assessment of the social assistance norm. There are several techniques for doing this (Gustafsson 1984, 2000; Halleröd 1991, 1995). Here data from Statistics Sweden’s expenditure survey have been used to estimate housing costs. The estimated cost is specified as a curvilinear function of the responses on the norm for social assistance.³ As an example: if a respondent

accepts that €922 per month is an adequate norm for social assistance, the housing cost for a family of four (living in one of the three largest cities) is estimated to be €462. Adding these two figures gives an adjusted estimation of an adequate norm for social assistance, which in this case amounts to €1,384. A comparison between the adequate norm for social assistance and the poverty line most frequently used within the EU, which is calculated as 60% of the median income, reveals almost no difference — the “EU poverty line” for a family of four being €1,398 a month in 1998.⁴ Thus, a first conclusion is that almost a third of the Swedish population perceive the norm for social assistance, thus also the poverty line applied by the EU, to be too low, while only a tenth thinks it is too high.⁵

The minimum-income question refers to the respondent’s own household, that is, to a number of household types. A comparison between the minimum-income question and the adequate norm for social assistance therefore requires some sort of adjustment of household size. The most straightforward way to do so is to use the minimum-income question for its original purpose and calculate a subjective poverty line, which automatically produces an equivalence scale.⁶ The adjusted minimum-income question is weighted to reflect a family of four, that is, it reflects the answers to the minimum-income question that we could expect if everyone were living in a two-adult and two-child household. The adjusted minimum-income question can thereafter be approximately compared with the poverty line. The evaluation gap between what people think they need for themselves and what they deem adequate for the poor is then calculated as the answer to the adjusted minimum-income question minus the answer to the question on the adequate norm for social assistance. A basic description of the dependent variables is given in Table 1.

INDEPENDENT VARIABLES

The economic situation is measured with the household’s equivalent disposable income. Data are gathered from the tax return register and include all registered incomes and transfers minus taxes. The adjustment to household size is based on the subjective poverty line equivalence scale (see note 6). As for the adjusted minimum-income question, a family of four, two adults and two children, is used as point of reference, facilitating a one-to-one comparison between household income and the dependent variables. For a description of the income variable, see Table 1.

Risk exposure is indicated by six variables: class, current unemployment, unemployment experience, recipients of social assistance, single-parenthood, and worries about the household economy. The first five of these variables have been repeatedly shown to be of importance for the structuring of a wide range of living conditions, not least economic marginalization and dependence on means-tested income support programs (compare Bihagen & Halleröd 2000;

TABLE 1: Mean Value (\bar{d}) and Standard Deviation for Adjusted Adequate Norm for Social Assistance, Adjusted Minimum Income, and Evaluation Gap

	Mean	Standard Deviation	n
Minimum income	1,417	589	3,982
Adjusted minimum income	1,795	641	3,982
Assessment of the norm for social assistance	989	198	3,648
Adequate norm for social assistance	1,412	236	3,648
Evaluation gap	389	650	3,314
Monthly equivalent disposable income	2,767	1,236	4,610

Häll & Vogel 1997; Halleröd 2001; Nordenmark 1999; Strandh 2000). The sixth indicator is somewhat different, relating more to personal experience and feelings than to structural position.

Class is measured in accordance with Statistics Sweden's socioeconomic code, and a schema consisting of seven class positions, displayed in Table 2, has been derived. The basic rationale behind the classification is the same as that guiding the well-known EGP-schema (Erikson & Goldthorpe 1993). Current unemployment designates those who were unemployed when interviewed for the ULF. Unemployment experience measures the total number of weeks of unemployment during the preceding five years. Recipients of social assistance are those who lived in a household where someone (themselves or their partner) received social assistance during 1998. This information is gathered from the tax return register and is, hence, not based on self-reporting. The indicator measuring economic worries is based on the question "Have you been worried lately about your family's economy during the coming year?" Those who state that they often have such a worry have been distinguished as a separate category. Distribution of the risk variables is shown in Table 2.

Attitudinal dimensions are measured by 13 variables. Phrasing and distribution of these variables are shown in Table 3. Table 3 also includes the results from a factor analysis, revealing two factors. The first factor picks up variation from seven variables relating to misuse and fraud with regard to publicly provided transfers and services. These variables have been used to build up an additive index labeled misuse index. The six remaining variables are all related to sentiments about redistribution. These questions concern general issues about the view of income differences in society at large, views on the use of tax money, and, finally, the will to pay more tax to specific programs for redistribution. These variables have been used to form a

TABLE 2: Distribution of Independent Variables

	Percentage
Unskilled blue-collar worker	25.1
Skilled blue-collar worker	15.8
Lower white-collar worker	12.6
Middle-range white-collar worker	18.1
Higher white-collar worker	13.3
Self-employed	9.1
Others	6.2
Currently unemployed	7.6
Unemployment experience	23.8
Recipients of social assistance	5.6
Single parent	4.5
Worried about the household's economy	10.7

redistribution index. Both indexes have been normalized to vary between 0 and 1, 1 indicating maximum belief in misuse and an overwhelmingly positive view of redistribution. Statistics for the indexes are displayed in Table 4.

The hypothesis that a combination of a high degree of suspiciousness about misuse and negative sentiments toward redistribution may have a special impact on people's views is tested with a variable that designates those simultaneously scoring among the top third on the misuse index and the bottom third on the redistribution index. All in all, 7.7% of the working sample ends up in this category.

A set of control variables is also used in the analysis. First, the number of adults and children in the household is included, the main reason being that the actual household composition is likely to affect people's experience and therefore also their ability to respond on both the minimum-income question and the adequate norm for social assistance. Gender is included for the same reason. Research on intrahousehold distribution of resources has revealed not only unequal intrahousehold sharing of resources between spouses, but also a gendered division of responsibilities and management of the household's economy. Women in low-income households tend, for example, to take on the responsibility of managing the household economy, from which it follows that they also have better knowledge of the true costs of running a household (Nyman 2002; Pahl 1989). Finally, age is included; earlier research (Halleröd 1995; Rainwater 1990; Saunders & Matheson 1992) shows that age has a concave up curvilinear relationship with the dependent variables. Age squared is therefore also included in the regression model.

Much of the research on attitudes toward the welfare state shows that socioeconomic variables strongly affect attitudes (Svallfors 2002). In this study,

TABLE 3: Attitudinal Variables, Distribution, and Factor Scores (Principal Component Analysis and Varimax Rotation)

	Percentage			Rotated Factor Binding	
	Increase?	To Be Kept As It Is?	Decrease?	Misuse Index	Redistribution Index
Do you think that the share of tax money that goes to housing assistance should	15.6	57.3	27.1	-.00	.63
Do you think that the share of tax money that goes to social assistance should	22.4	56.5	21.1	-.14	.63
Do you think that the share of tax money that goes to labor market policy should	57.3	27.5	15.3	.13	.65
Could you imagine yourself paying more tax to social assistance, that is, support to those who cannot support themselves?	Yes, Absolutely 8.2	Yes, Probably 30.9	Don't Know 2.5	No, Probably Not 37.5	No, Definitely Not 20.9
Could you imagine yourself paying more tax to labor market policy, that is, to maintain or create more job opportunities?	16.6	31.9	2.1	29.1	20.1
				-.00	.71

TABLE 3: Attitudinal Variables, Distribution, and Factor Scores (Principal Component Analysis and Varimax Rotation)

	Percentage				Rotated factor binding		
	Agree Completely	Agree to Some Degree	Don't Know	Disagree to Some Degree	Disagree Completely	Misuse Index	Redistribution Index
Many people using public health care are not really sick.	7.4	34.7	4.3	24.3	29.2	.68	-.00
Many of those receiving unemployment insurance could get a job if they wanted.	26.7	43.2	2.2	17.5	10.3	.71	-.12
Many of those receiving housing assistance should move to a smaller and cheaper place.	17.2	35.8	5.4	24.7	17.0	.61	-.21
A lot of those on the sick list are not really sick. [†]	10.7	32.0	4.6	27.8	24.9	.74	-.01
What do you think about a society that tries to decrease income differences?	A Very Good Suggestion	Rather Good Suggestion	Not Good/ Not Bad	Rather Bad Suggestion	A Very Bad Suggestion		
	21.8	32.9	23.4	16.9	4.9	-.00	.51
Many of those receiving social assistance are not really poor. There are many who receive social assistance because of fraud. Many recipients of social assistance are lazy and lack the willpower to change their situation.	Agree Completely	Agree Somewhat	Disagree				
	15.6	40.8	43.6	.71	.00		
	24.3	47.2	28.5			.73	.00
	18.2	43.0	38.8			.75	.00

[†] In Sweden, being on the sick list almost universally includes receiving sickness insurance.

TABLE 4: Basic Statistics for Misuse Index and Redistribution Index

	Mean	Standard Deviation	Cronbach's Alpha
Misuse index	.47	.23	.83
Redistribution index	.52	.20	.69

socioeconomic variables and attitudinal variables are jointly used as independent variables. Hence, there is an obvious risk that the effect of the socioeconomic variables operates indirectly via the attitudinal indexes. In order to explore the degree to which this is the case, the analysis has been conducted in two steps: first, the socioeconomic variables are entered into the regression model, together with the control variables, and thereafter the attitudinal measures are entered.

Before proceeding to the empirical analysis, it may be worthwhile to remind the reader that Swedish data are being used. Hence, the study is situated in a country that is still characterized by a relatively equal distribution of economic resources and living conditions, even though most indicators show that inequality has increased during the past decades (Björklund 1998; Smeeding & Gottschalk 1998). A tradition of political and civic mobilization and, not least, a strong labor movement with an ability to affect the wage structure, progressive taxation, and a wide range of social-policy measures are definitely key factors underlying the society (Baldwin 1990; Korpi 1978). It is not the case that the relative equal distribution of resources reflects a Swedish consensus on redistribution of resources, but it does reflect the fact that redistribution of resources is perceived as legitimate by large sections of the population, mitigating what otherwise would be seen as appalling inequality. Comparisons between views on redistribution and legitimate income differences in various Western countries usually places Sweden, together with the other Nordic countries, at one end of the spectrum and the Anglo-Saxon countries, in particular the U.S., at the other end (Edlund 2003; Svallfors 1996, 1997, 2002). Swedes also hold a much more restricted view of legitimate income differences. Swedes, for example, think that it is legitimate for a (general practice) doctor to earn about twice as much as an unskilled factory worker, while Americans think that it is legitimate that the doctor earns more than six times as much as an unskilled factory worker (Svallfors 1997). The fact that almost a third of the population regard the norm for social assistance to be too low may be seen as an indicator of the relative egalitarian values that many Swedes hold. The question of the degree to which Swedish uniqueness has shaped the present results and has led to a comparatively narrow gap between what is seen as necessary for oneself and what is perceived as adequate for the poor cannot be

answered here, but it may be worthwhile to consider Swedish social attitudes when interpreting the results.

Results

The results from the analyses are presented in Table 5. In the first three restricted regression models (models 1a–c), the attitudinal variables are excluded, whereas they are included in the remaining three complete models (models 2a–c). The main focus will be on models 2a–c, but first some remarks about the differences between the restricted and the complete models are in order. First, the estimates related to income are more or less unaffected by the introduction of the attitudinal variables. Second, the size of the estimates for the variables related to risk exposure decreases by about 10% when the attitudinal variables are added to the model, but the significant effects of the risk variables on responses to the adjusted minimum-income question in model 1a remain significant in model 2a. Adding the attitudinal variables does not affect the explanatory power of model 2a, indicating that attitudes only mediate the effects of the variables in model 1a without adding any unique explanatory power. The pattern to a large degree repeats itself when comparing model 1b with model 2b, estimating the adequate norm for social assistance. The estimates related to the risk variables decrease and become insignificant in two cases. In those cases, however, the attitudinal variables do add explanatory power to the model. Finally, when looking at the estimates for the evaluation gap, the estimates from model 1c decrease in model 2c, but the pattern remains the same. Thus, it is the case that the variables used as indicators of risk exposure to some degree operate indirectly via the attitudinal variables, but the main part of the impact they do have is unrelated to the attitudinal variables.

Let us now look at the results in more detail. The adjusted minimum income increases as actual income increases. For every extra euro of actual income, the estimated minimum income increases by 17 cents, other things being equal. Hence, people adapt their preferences at the same time as the absolute gap between current income and what is perceived as a minimum widens. As expected, there is also an impact of income on the adequate norm for social assistance, showing that a higher income is connected with a more generous view of the needs of the poor. Yet, as expected, the marginal effect here is much lower, only two cents per euro. The result is that the evaluation gap widens rapidly as household income increases. For every extra euro in income the gap increases by 15 cents.

It was expected that the most risk-exposed classes should give a high estimation of the adequate norm for social assistance and locate the adjusted minimum income close to the adequate norm for social assistance, resulting

TABLE 5: Regression (OLS) Estimates and the Estimates' Standard Error for Adjusted Minimum Income, Adequate Norm for Social Assistance, and Evaluation Gap

	Model 1a Adjusted Minimum Income	Model 1b Adequate Norm for Social Assistance	Model 1c Evaluation Gap	Model 2a Adjusted Minimum- Income	Model 2b Adequate Norm for Social Assistance	Model 2c Evaluation Gap
Intercept	165.27 (104.05)	1360.55*** (45.09)	1267.91*** (118.03)	260.95* (113.49)	1393.39*** (48.28)	-1203.45*** (128.18)
Equivalent disposable income	.18*** (.01)	.02*** (.00)	.16*** (.01)	.17*** (.01)	.02*** (.00)	.15*** (.01)
Class position (Reference group: unskilled blue-collar)						
Skilled blue-collar	4.59 (29.11)	-10.34 (12.71)	8.94 (32.85)	.31 (29.22)	-18.50 (12.48)	15.19 (32.60)
Lower white-collar	91.18** (31.00)	6.95 (13.56)	46.84 (35.27)	78.66* (31.31)	5.11 (13.34)	38.70 (35.14)
Middle white-collar	93.49** (28.61)	8.39 (12.49)	78.61* (32.34)	71.75* (29.08)	1.48 (12.42)	64.16* (32.56)
Higher white-collar	235.49*** (33.07)	31.29* (14.44)	202.93*** (37.24)	204.27*** (34.22)	25.87 (14.66)	175.10*** (38.31)
Self-employed	37.27 (36.93)	-42.74** (15.60)	79.74 (41.65)	12.04 (37.45)	-24.56 (15.51)	31.38 (41.99)

Notes: Standard errors are in parentheses.

TABLE 5: Regression (OLS) Estimates and the Estimates' Standard Error for Adjusted Minimum Income, Adequate Norm for Social Assistance, and Evaluation Gap

	Model 1a Adjusted Minimum Income	Model 1b Adequate Norm for Social Assistance	Model 1c Evaluation Gap	Model 2a Adjusted Minimum- Income	Model 2b Adequate Norm for Social Assistance	Model 2c Evaluation Gap
Others	-41.86 (43.51)	10.66 (19.28)	-27.01 (49.72)	-48.26 (43.97)	-1.65 (19.01)	-24.09 (49.64)
Unemployed	-14.95 (42.98)	5.94 (18.33)	-15.16 (46.78)	-14.52 (43.08)	1.32 (17.98)	-16.06 (46.45)
Unemployment experience	.99 (2.36)	1.42 (1.06)	-.97 (2.69)	.97 (2.40)	.69 (1.04)	-.09 (2.67)
Recipient of social assistance	-74.20 (43.64)	67.31** (19.48)	-108.32* (50.25)	-70.60 (44.65)	59.02** (19.17)	-92.37 (50.10)
Single parent	17.99 (45.73)	-28.11 (20.57)	32.56 (51.67)	23.82 (46.18)	-33.42 (20.17)	41.89 (51.29)
Worried about the economy	203.39*** (31.53)	18.61 (13.91)	181.44*** (35.49)	198.97*** (31.78)	15.95 (13.64)	175.05*** (35.23)
Misuse index				-93.66* (43.05)	-113.01*** (18.24)	20.04 (47.89)
Redistribution index				-89.23 (52.04)	157.18*** (22.18)	-247.42*** (58.43)

Notes: Standard errors are in parentheses.

TABLE 5: Regression (OLS) Estimates and the Estimates' Standard Error for Adjusted Minimum Income, Adequate Norm for Social Assistance, and Evaluation Gap

	Model 1a Adjusted Minimum Income	Model 1b Adequate Norm for Social Assistance	Model 1c Evaluation Gap	Model 2a Adjusted Minimum- Income	Model 2b Adequate Norm for Social Assistance	Model 2c Evaluation Gap
Interaction redistribution/misuse						
Number of adults	91.52*** (18.42)	-22.36** (13.91)	118.43*** (20.89)	102.52** (39.26)	-14.10 (17.00)	129.12** (44.83)
Number of children	-41.13*** (10.22)	-8.55 (4.43)	-33.69** (11.43)	-41.83*** (10.26)	-27.85*** (7.90)	128.44*** (20.81)
Sex (men = 0)	20.83 (18.56)	4.66 (8.09)	24.36 (20.99)	19.86 (18.77)	-3.02 (7.97)	31.64 (20.95)
Age	40.94*** (4.74)	2.08 (2.08)	40.59*** (5.43)	40.89*** (4.79)	.03 (2.06)	42.96*** (5.44)
Age ²	-.42*** (.05)	-.03 (.02)	-.41*** (.06)	-.42*** (.05)	-.01 (.02)	-.43*** (.06)
Adjusted R ²	.24	.02	.21	.24	.06	.22

Notes: Standard errors are in parentheses.

* p < .05 ** p < .01 *** p < .001

in a narrow evaluation gap. The result does not confirm this hypothesis. Blue-collar workers do not have a more generous view of the adequate norm for social assistance than others do. Hence, there is no evidence for the idea that classes with a weaker market position are more generous toward the poor (the significant estimate in model 1b in fact indicates the opposite). The reason the evaluation gap is nevertheless lower among blue-collar workers than among white-collar workers is that white-collar workers, especially higher white-collar workers, after controlling for income, estimate their adjusted minimum income significantly higher than the other classes do. It is plausible to relate this result to adaptation of preferences and choices of the comparison group, that is, white-collar workers express the need for a relatively high adjusted minimum-income question because they have a consumption pattern related to the prevailing life-style within their class, a life-style that is not deemed to be necessary for the poor.

Among the other risk indicators, neither present unemployment, unemployment experiences, nor being a single parent affects any of the dependent variables. Receiving social assistance did, as expected, result in a higher estimate of the adequate norm for social assistance. Also in accordance with the hypotheses, the sign for the estimate of the adjusted minimum income is negative, although just outside the margin of significance. The evaluation gap coefficient is negative and significant in model 1c, but just outside the margin of significance in model 2c. Worries about the economy have the opposite effect and increase both the adjusted minimum income estimate and the evaluation gap but do not increase the value of the adequate norm for social assistance. Hence, people worrying about their private economy do think that they need a relatively great amount of money to make ends meet, which basically leaves us with two explanations: either they have high costs, debts, expensive habits et cetera, or they are more inclined than others to be anxious about money. It can be concluded that the risk hypothesis receives very weak support from the present data. It is only those actually having experienced social assistance who behave in accordance with the theoretical hypotheses. That is, they are the ones who are more generous and locate their answer to the adjusted minimum-income question close to where they estimate the adequate norm for social assistance.

The attitudinal variables behave largely as expected. A high value on the misuse index is associated with a low value on the adequate norm for social assistance, confirming that lack of trust is linked to a less generous stance on the needs of the poor. However, scoring high on the misuse index is also interrelated with a low value on answers to the adjusted minimum-income question, indicating a more general belief that it is possible for everyone, including oneself, to make ends meet on a relatively small income. Therefore the evaluation gap is unaffected by the misuse index, and we cannot draw the conclusion that those who mistrust users of welfare also apply different

standards to different kinds of people. In a contrast, scoring high on the redistribution index does affect the evaluation gap. Moving from the lowest to the highest value on the index decreases the estimated evaluation gap by almost 250. The main reason for this is that positive attitudes toward redistribution are related to a high value on the adequate norm for social assistance. It is also the case that the adjusted minimum-income estimate has a negative sign, although just outside the margin of significance. Thus, favorable sentiments toward redistribution seem to generally benefit the poor as well.

The interaction term, combining mistrust and a negative stance on redistribution, gives an extra positive boost to answers to the adjusted minimum-income question, which increases the evaluation gap. This also means that this category of people does not share the general belief found among those scoring high on the misuse index that everyone, including oneself, can do with relatively little money if necessary. They differ by excluding themselves.

All control variables, except gender, affected the dependent variables in one way or another. Even though the dependent variables are adjusted in relation to household size, both the number of children and the number of adults affect the estimates. Somewhat more interesting is the strong impact of age. The adjusted minimum-income estimates reproduce the well-known curvilinear pattern, showing that people in their forties place the estimate of their minimum income at a maximum. Younger and older people generally think that they can do with less.

Conclusions

As expected, the hypotheses related to adaptation of preferences (hypotheses 1 and 2) are supported. A high income leads to a high estimation of the minimum income considered necessary to make ends meet, while only a small fraction of that effect spills over to the evaluation of the poverty line. The apparent consequence is that the gap between what is considered a minimum for oneself and what is deemed adequate for the poor increases as income increases. Hence, people progressively adopt different standards as they become wealthier; a relatively affluent person perceives it as more or less unthinkable to make a living on the means they perceive as sufficient for the poor.

The hypothesis that risk exposure should lead to a more generous view of the poverty line (hypothesis 3) was not generally supported by the data. The view of an adequate poverty line did not vary as expected between different classes. Similarly, unemployment, single parenthood, and worries about personal economy did not affect the assessment of the poverty line. It was only recipients of social assistance who lent some support to the hypothesis. That is, they gave a relatively high estimate of the poverty line. No theoretical predictions were

made of the relationship between the assessment of one's own minimum income and the risk variables. What the empirical analysis did show was that, even when income was controlled for, white-collar workers judged their own minimum to be significantly higher than blue-collar workers did. The most likely explanation for this observation is to be found among theories about class culture and reference groups. That is, white-collar workers estimate their minimum income to be higher because they estimate the costs of adapting to a white-collar life-style, in order not to put their social position at risk. As a consequence, they distance themselves from the less prosperous. Those who worry about their own economy follow the same pattern as the white-collar workers, that is, they think they need a great deal of money to make ends meet, but they do not translate that worry into a wish to make the last-resort income safeguard more generous.

The only category fitting the assumption made in hypothesis 4, that risk exposure should lead to a small evaluation gap, was recipients of social assistance. However, it is not certain that this result, on its own, may be seen as a more general verification of the risk exposure hypothesis. The simple reason that recipients of social assistance give the answers they provide could be that they know that it is hard to make it on the money that the norm for social assistance stipulates, and they therefore tend to think that the norm should be higher. On the other hand, they have all experienced that it is possible to survive on a small sum of money, leading to a strict estimation of the minimum income needed for oneself. Strengthening this assumption is the fact that the other category, the unemployed, who actually have been exposed to risk, do not deviate from the rest in any way. Thus, the main conclusion is that risk exposure does not in any noteworthy way affect people's perceptions.

Attitudes toward economic redistribution and misuse of social-policy measures are clearly associated with the view of minimum standards. Mistrust is connected not only to a strict view of the poverty line (supporting hypothesis 5), but also to an austere evaluation of the minimum income needed for oneself. Hence, it seems as if perceptions of misuse can be seen not only as a critical stance against individuals using the system, but also against the system's level of generosity. The viewpoint seems to be that everyone, including oneself, should be able to do with less, which leads to a situation in which recipients of social assistance are perceived as misusing the system by default, because the system is too generous. The result is that perceptions of misuse do not affect the evaluation gap. Hence, data do not lend support to hypothesis 6. The opposite view is captured by the measures of attitudes toward redistribution. Positive sentiments toward redistribution and an equal income distribution are connected to generous views on the poverty line, as stipulated in hypothesis 7. It is not the case that a positive view of redistribution is related to the notion of giving more to everyone, as the estimate of one's own minimum income is unrelated to views on redistribution. (The data in fact indicate the

opposite; the more people favor redistribution, the less income they tend to claim they need for themselves, this estimate being just outside the margin of significance.) The effect is, in line with hypothesis 8, that a positive view of redistribution narrows the gap between one's own minimum income and the adequate norm for social assistance. Thus, both attitudinal dimensions have a certain logic. Being in favor of redistribution not only means having a higher degree of generosity toward the poor, it also means acknowledging that the poor have the same needs as oneself. Believing that public provisions are misused means that one thinks that these provisions should generally be less generous, which, of course, results in the most harm for the poor. However, this pattern only holds true if we devote special attention to the rather tiny fraction of the population that is both firmly against redistribution and that strongly believes that provisions are misused. Because they all score high on the misuse dimension, they all think that the norm for social assistance should be relatively low. At the same time, they estimate their own minimum income to be comparatively high, leading, in line with hypothesis 9, to a large discrepancy between what is perceived as a minimum for oneself and what is to be looked upon as adequate for the poor.

The findings presented here underpin the central importance surrounding the issue of the legitimacy of the welfare state and the accomplishment of a policy that decreases economic inequality. The ability to secure a decent standard for everyone living in democratic society is, in the long run, dependent on public acceptance of the measures taken to secure this goal. An environment that encourages mistrust of the users of welfare systems and decreases support for economic redistribution will do the most harm to those most in need. At the same time, large income differences will in themselves foster an environment of further acceptance of different standards for different people and acceptance of a situation in which the poor are effectively excluded from the ordinary lifestyle that predominates among the nonpoor.

Notes

1. It could be of some importance to note that the minimum-income question was asked before the question on the adequate norm for social assistance, which means that the respondents were not informed about the norm for social assistance when estimating their own minimum income.
2. The original question was, of course, posed using Swedish crowns (SEK). To facilitate reading, all amounts are expressed in euros (€), using the exchange rate of 9 SEK to 1€.
3. The imputed housing costs are calculated from Statistics Sweden's 1992 household budget survey (prices adjusted to 1998), using a regression model with the following specification:

$$H = a_0 + a_1 \text{DINC} + a_2 \text{DINC}^2 + a_3 \text{ADULT} + a_4 \text{CHILD} + a_5 \text{REG1} + a_6 \text{REG2} + a_7 \\ + \text{HTYPE1} + a_8 \text{HTYPE2} + a_9 \text{HTYPE3} + e$$

where H is the housing cost, DINC the household's disposable income, DINC² square of the disposable income, ADULT number of adults in the household, CHILD number of children, REG1 medium-sized towns, REG2 rural areas, HTYPE1 condominium, HTYPE2 rented apartment, and HTYPE3 other type of dwelling. Reference category for REG is the three largest cities and for HTYPE a privately owned house. The value to impute is estimated by replacing DINC with the adequate norm for social assistance, setting the number of adults and children to two, letting region vary, and including the estimate for rented apartment:

$$H^* = a_0 + a_1 \text{ANSAQ} + a_2 \text{ANSAQ}^2 + a_3 2 + a_4 2 + a_5 \text{REG1} + a_6 \text{REG2} + a_7 0 + a_8 1 + a_9 0 + e$$

4. My own calculation based on Income Distribution Survey 2001.

5. That the norm for social assistance in Sweden corresponds to approximately 60% of the median income is confirmed by both Behrendt (2002) and Nelson (2003). The latter also shows that the equivalent figure for minimum income protection in the U.S. is below 20% of the median income.

6. The subjective poverty line is a function of

$$\log Y_{\min} = a_0 + a_1 \log Y + a_2 \log \text{ADULT} + a_3 \log \text{CHILD} + e,$$

Y_{min} representing the minimum-income question answer, Y household income, ADULT and CHILD household size, and e the error term. The subjective poverty line for a given household size is given by

$$\text{SPL1} = \text{Exp} [\log Y_{\min}^*] =$$

$$\text{Exp} [a_0/(1 - a_1) + a_2/(1 - a_1) * \log \text{ADULT1} + a_3/(1 - a_1) * \log \text{CHILD1}]$$

The table below gives the subjective poverty line and the equivalence scale. As can be seen, the equivalence scale is, in accordance with earlier research, relatively flat.

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	Subjective Poverty Line (€ per month)	Equivalence Scale
Single adult	827	1.69
Single, one child	1003	1.39
Single, two children	1122	1.24
Single, three children	1216	1.15
Couple	1027	1.36
Couple, one child	1245	1.12
Couple, two children	1394	1
Couple, three children	1510	.92
Couple, four children	1607	.87

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Elites, Masses, and Media Blacklists: The Dixie Chicks Controversy*

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Abstract

Several studies have shown the influence of ownership on media content in routine contexts, but none has quantitatively tested it in the context of a crisis. Recently the country musicians the Dixie Chicks were blacklisted from the radio for criticizing the president in wartime. I use this event to test the role of media ownership in a crisis. Through analyzing airplay from a national sample of radio stations, this paper finds that contrary to prominent allegations grounded in the political economy tradition of media sociology, this backlash did not come from owners of large chains. Rather, I find that opposition to the Dixie Chicks represents grassroots conservative sentiment, which may be exacerbated by the ideological connotations of country music or tempered by tolerance for dissent.

The Dixie Chicks controversy has its roots on March 10, 2003, when the group performed at the London nightclub, Shepherd's Bush Empire. On March 12 the British newspaper *The Guardian* published a brief, three-star review of the concert, approvingly noting that in a "profoundly punk rock" moment, lead singer Natalie Maines told the audience, "Just so you know, we're ashamed the president of the United States is from Texas" (Clarke 2003). The remark reached American country music fans a few hours later with a post to the small Web site, countrynation.com, which had been following the European press coverage of the Dixie Chicks tour. That evening the article was copied in a post entitled "Dixie Chick Tea Party — dump Lipton tea for sponsoring anti-American Chicks!" to the internet discussion group rec.music.country.western.¹

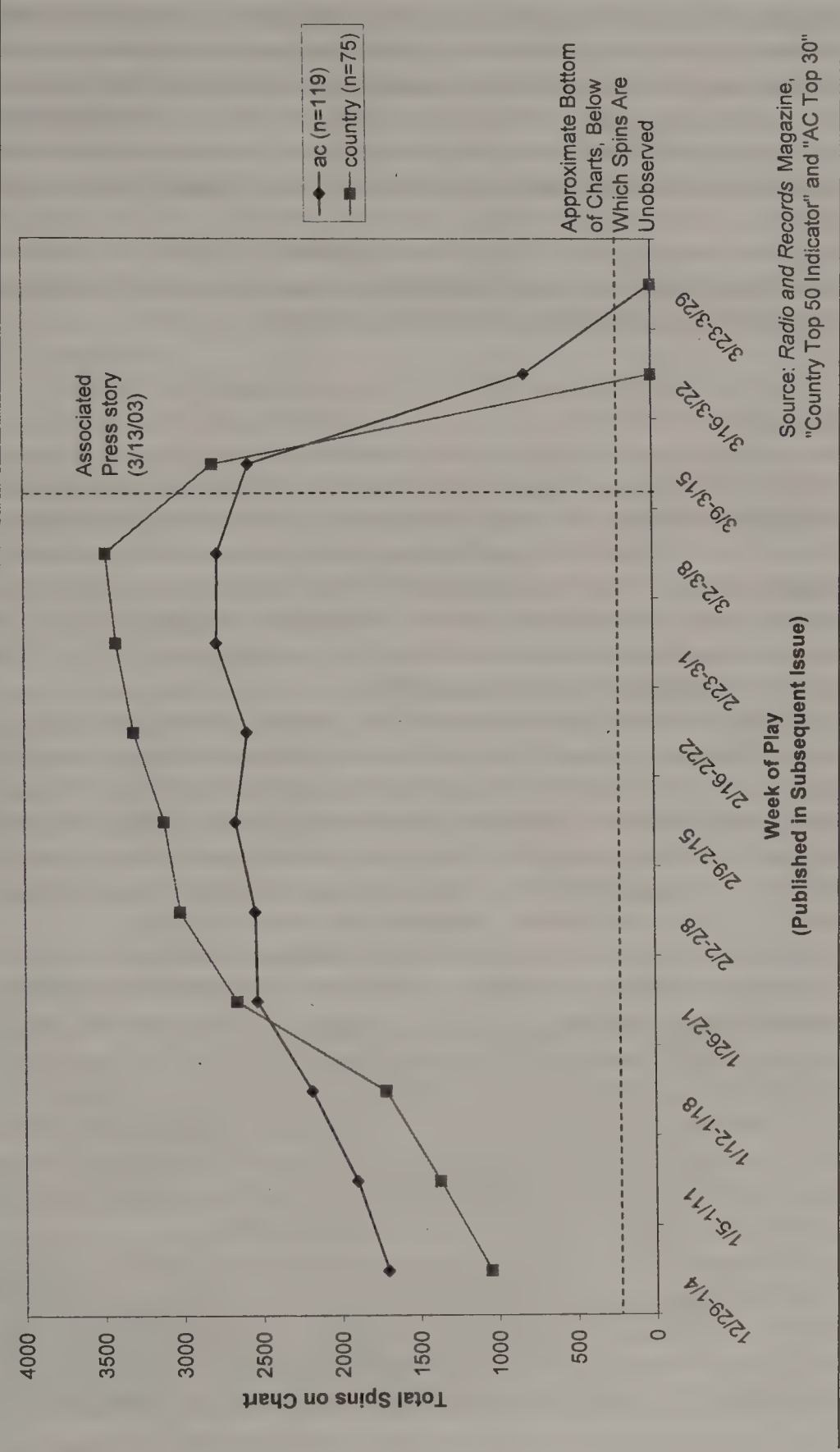
** This research was supported by a grant from the Rockefeller Foundation to the Princeton University Center for Arts and Cultural Policy Studies to investigate contemporary conflicts over art and culture in America. I am grateful to Deborah Becher, Paul DiMaggio, Nicole Esparza, Scott Lynch, Richard A. Peterson, Paul Starr, and two anonymous reviewers for their comments. Direct correspondence to Gabriel Rossman, Department of Sociology, Wallace Hall, Princeton University, Princeton, NJ 08544. E-mail: rossman@princeton.edu.*

On March 13, the day after the *Guardian* article and Internet discussion, the Associated Press published the first story in the major American media on the controversy, noting that “angry phone calls flooded Nashville radio station WKDF-FM on Thursday, some calling for a boycott of the Texas trio’s music” (Associated Press 2003). After the wire story, several newspapers carried stories on the subject and internet discussion bloomed, spreading to alt.fan.dixie-chicks and numerous political discussion groups. Much of the Internet discussion referred to the Dixie Chicks as “sluts” and associated them with other antiwar celebrities, evident in the insult “hillbilly Jane Fondas.” Some posters said they agreed with Maines or discussed the nature of dissent and rebuttals to it in a democracy at war, but many of the posts simply expressed contempt for the musicians. For instance, one post described the Chicks as “stupid anti-American sluts like Jane Fonda, Barbara Streisand [sic], Jeannie Garafalo [sic], Hillary Clinton, etc.” and (inaccurately) alleged that fans at the London concert burned an American flag. Other posts took offense at the foreign context of the remark. The Internet discussion was a microcosm of the discourse about Maines’s insult.

On March 14 the Associated Press reported that radio stations had begun dropping the Dixie Chicks from their playlists and engaging in such publicity stunts as providing “trash cans outside the radio station for people to throw their Dixie Chicks CDs away” (Heidgerd 2003). The week before the controversy began their songs were number one on the adult contemporary and country airplay charts as published in the trade journal, *Radio and Records*. During the week that the story broke, their numbers began to slip on the country chart but held steady for adult contemporary. Maines rapidly apologized for the disrespectful tone of her remarks, but maintained her right to oppose the war, to no avail. Within two weeks they had dropped from both charts entirely. As will be shown below, however, the drop was not spread evenly among radio stations, but varied by locale, format, and owner in both surprising and predictable ways.

In a *New York Times* essay that was widely circulated and quoted on the Internet and alternative print media, Princeton economist Paul Krugman (2003) accused the massive radio conglomerate Clear Channel of conspiring against the Dixie Chicks as a favor to the Bush administration because, among other reasons, “the Federal Communications Commission is considering further deregulation that would allow Clear Channel to expand even further, particularly into television” (March 25). Clear Channel is widely reviled because it is the largest radio chain and allegedly abuses its market power. The notion that Clear Channel is out to punish the Dixie Chicks for their political statement has become a small bit of received wisdom in some circles (e.g., Barrett 2003; Zacharek 2003). This fits into the familiar frame of the “corporate media” serving to legitimate conservative interests (e.g., Bagdikian 2000; McChesney 1999a).

FIGURE 1: Trends in Dixie Chicks Airplay



Ironically, were Krugman correct about the chains' actions and motives, these actions would nonetheless be counter-productive. Although in the following months the Federal Communications Commission (FCC) continued with its long anticipated deregulation agenda, the Dixie Chicks blacklist was the subject of a Senate Commerce Committee hearing which contributed to a backlash against media concentration in Congress (Holland 2003; U.S. Senate 2003).

This article uses radio airplay data from *Radio and Records* to determine the source of the Dixie Chicks' blacklisting. I assess competing hypotheses of conglomerate media ownership and local sentiment.

Theory

This article draws on three distinct literatures: the political economy of the mass media tradition, the social movements literature, and the sociology of culture. To the extent that cultural industry organizations shape cultural discourse, and to the extent that cultural discourse shapes our thoughts and actions, these organizations have a tremendous amount of power. Both assumptions of this syllogism are disputable, and the inquiry is the object of the political economy of the mass media.

Political economy theorists assume that cultural organizations derive their primary interests and political influences from ownership. Herman and McChesney (1997) assert that corporate ownership makes the media "missionaries" for global capitalism. Herman and Chomsky (1988) describe for-profit ownership as one of five "filters" that let the media distort reality and promote hegemony. Bagdikian (2000) has argued through six editions of his book that "ultra-conservative" managers skew media content.

There are numerous historical studies that establish the role of media ownership, especially in extreme circumstances. William Randolph Hearst routinely shaped coverage in his media properties to promote both his other financial interests and his political ambitions within the Democratic party (Nassaw 2000). Chomsky (1999) describes how the Sulzbergers stifled *New York Times* coverage of the Spanish Civil War. More recently, Rupert Murdoch gained favor with the Communist Chinese by canceling a book contract, dropping the BBC from his satellite network, and paying an above-market book advance to a member of the inner circle (Curtin 2000).

Those quantitative studies that most rigorously isolate the effect of ownership typically examine media bias in routine contexts (e.g., Williams 2002; Akhavan-Majid et al. 1991). However, much of the historical literature's interest lies in its exploration of the possibility that the greatest bias will be exhibited when class interests are most greatly threatened; during a political crisis of some

sort. Even if power is not regularly exercised, its potential for use in an extreme situation can dramatically restructure the dynamics of a system, as seen by the extreme example of the impact of nuclear stockpiles on conventional warfare (Van Creveld 1991).

Political economists have noted a large increase in the concentration of media ownership since World War II (Bagdikian 2000; McChesney 1999b). Particularly of note is the shift of media properties from wealthy families to publicly traded firms, the latter often called "the corporate media." The managerial capitalism of corporations is theoretically and empirically distinct from heroic capitalism in its approach to media properties (Bagdikian 2000; Tiftt & Jones 1999).

For decades radio largely escaped the trend of conglomeration thanks to FCC regulations that limited firms to owning just a few dozen stations. The Telecommunications Act of 1996 effectively eliminated ownership restrictions, and within a few years the industry reached its current level of conglomeration, with Infinity/Viacom, Cumulus, and Citadel owning over one hundred stations each and Clear Channel with over one thousand.

Its large size has not made Clear Channel popular with political economists, activists, recording artists, record labels, or its radio rivals. The journalist Eric Boehlert is particularly critical of Clear Channel. His ongoing series in *Salon* magazine has accused the company of kickbacks for airplay, sexual harassment, and abuse of market power (Boehlert 2000-03). Indeed, Clear Channel is sometimes portrayed as the source of all evil, strife, and upheaval in the music industry. It was in this context of academic and political discourse about corporate media in general and Clear Channel in particular that Krugman (2003) and numerous other commentators accused the company of initiating the Dixie Chicks' blacklisting. This provides the first hypothesis:

Hypothesis 1: Large chains, especially the industry leader, Clear Channel, reduced Dixie Chicks airplay more than independent stations and small chains.

It is useful, however, to appreciate how songs are actually chosen for radio airplay, as several trade publications and production of culture studies explain. Most commercial radio stations do not operate according to the romantic notion of a connoisseur disc jockey sharing his favorite records with the audience. Rather, at nearly all commercial radio stations there is a division of labor between the disc jockey, who plays the records and makes patter, and the program director, who chooses which records to play and when. The typical program director is a skilled professional who creates a "music schedule," which is essentially a script for DJs to follow. At smaller stations the program director may also be a disc jockey or the general manager, but at large stations it is a distinct position, and at especially large stations there is a further division of labor between the program director and the music director. It is also common for a program director to program two or more radio stations owned by the

same chain. To create the schedule, the program director uses trade magazines, other radio stations' playlists, airplay and sales charts, systematic audience telephone surveys, audience phone calls and letters, information from record companies and their promoters, and the database software, Selector. Intuition and taste play some role, but it is a highly technical profession (Lynch & Gillespie 1998). Chain-owned radio stations are especially likely to employ this technical, research-driven method (Ahlkvist 2001), which has the consequence of promoting homogeneity in their playlists (Ahlkvist & Fisher 2000). This production of culture literature on the bureaucratic nature of large radio chains provides a counter-hypothesis to that provided by political economy:

Hypothesis 1a: Large chains will reduce Dixie Chicks airplay more slowly than independent stations and small chains.

The political economists Herman and Chomsky (1988) list flak from social movements and other aggrieved parties as a major source of media distortion, but their tradition largely abstains from systematic study of where flak comes from and what effect it has. Some media scholars have described the role of social movements in shaping the media and the political sociology of social movements provides a useful framework for studying the phenomenon.

Social movement organizations actively seek to influence the mass media and some, such as the American Family Association and Fairness and Accuracy In Reporting, have this as their sole purpose (Montgomery 1989; Suman & Rossman 2000). Alterman (2003) documents an aggressive effort by various elements of the conservative movement to influence the media. They claim to counter liberal bias, but Alterman considers them to be "working the refs."

The Dixie Chicks situation has parallels to the Hollywood blacklist, which is commonly, but inaccurately, imagined to have been a conspiracy between the studio owners and the House Committee on Un-American Activities (HUAC). In fact, the blacklist is a striking example of the power that social movements can exert on the mass media. The 1952 *Miracle* decision put the studios in a very strong legal position from which to face Congress, but competition from television and the 1948 *Paramount* decision ending vertical integration put them in a very weak economic position from which to face a boycott.

Contemporary leftist accounts of the blacklist did not claim that the moguls acted from class interest, personal animus for Communists, or even fear of unfavorable legislation. Rather the leftist critique of the studios was that they were too "cowardly" to stand up to American Legion pickets (Anonymous 1952). Management and the unions together formed the Motion Picture Industry Council (MPIC) to fight the blacklist, although MPIC eventually adopted a strategy of appeasement. The blacklist and the related "clearance" system were effectively run by the American Legion and other right-wing so-

cial movement organizations that published lists of those who had been named by informers or were tied to front organizations (Navasky 1980). The Legion promised to mobilize their four million members and auxiliaries to picket any film involving these suspected Communists. Likewise, once exposed as a Communist, folk singer Pete Seeger was “banned from many mainstream venues either because there were outspoken anti-Communists to oppose him or because venues wished to avoid *potential* controversy” (Bromberg & Fine 2002:1144).

Even if social movement organizations have no proximate involvement in a political event, they can have an indirect effect through socializing their members to address a certain set of concerns with a certain repertoire of political tactics (Tilly 1983). Therefore, a collection of proximately spontaneous acts can meaningfully be considered a form of collective action and part of a social movement. Movements have taught their members that boycotts are an appropriate response to offensive cultural content (Montgomery 1989; Suman & Rossman 2000). This tactic is so practiced that it no longer necessarily requires central coordination.

Gamson (1992) found that in small-group discussions of political issues, Americans almost reflexively invoke the potential for grass-roots political action, particularly if they view themselves, or those with whom they sympathize, as having suffered an injustice. The links among public opinion, social movements, and spontaneous political action motivate the second major hypothesis:

Hypothesis 2: Stations in states and regions with conservative politics more greatly reduced Dixie Chicks airplay than stations in liberal areas.

Disagreement and distaste need not necessarily lead to protest. Even if one is offended by speech, a commitment to political tolerance may allow one to let the offense pass without censure. Evidence from survey experiments (Nelson, Clawson & Oxley 1997), ethnographic interviews (Chong 1993), and focus groups (Gamson 1992) shows that framing issues in terms of free speech makes people more willing to tolerate offensive speech. This should translate to the macro level. Areas where free speech is a popular value may see free speech invoked more often — and resonate more often — in cultural conflicts.

Hypothesis 2a: Expressed tolerance for critical speech suppresses the negative impact of conservative politics on Dixie Chicks airplay.

The sociology of culture literature on country music provides further perspective on the Dixie Chicks. The country music form originated with the folk music of Anglo-Saxons, Celts, and African Americans in the American South (Peterson 1997). In the 1920s a burgeoning commercial recording and broadcasting industry sought out new music beyond New York to feed a ravenous and diverse market. Anthropologists such as Alan Lomax and Tin Pan

Alley A & R men such as Ralph Peer recorded “hillbilly” and “race” records, and in the process split a fairly integrated roots music tradition into genres that would eventually become white “country” music and black “blues.” In the mid 1920s Henry Ford sponsored “old timey” musicians, such as Fiddlin’ John Carson as a way to promote a wholesome nationalism grounded in pastoralism and the identity of old white ethnic stocks. This music stood in contrast to the commercial jazz music of Tin Pan Alley, which was associated with blacks, Jews, sex, alcohol, and big cities. Beginning in the 1930s, the Communist Party used folk music in meetings and labor organizing (Denisoff 1969). In 1953, Congressional redhunters attacked the Communist folk group, the Weavers, splitting the genre further — not by race but by politics (Peterson 1997:199). Thenceforth, “folk” music was identified with the political left (Denisoff 1969), whereas “country” music was identified with the political right (DiMaggio, Peterson & Esco 1972; Lund 1972). By the 1970s country music had spread from a rural white audience to the urban white working class (Peterson & DiMaggio 1975). Ironically, as country reached a more urban audience, began to use electric instruments, and integrated into the commercial music industry, lyrics “loaded up on signifiers that unambiguously locate the song — and by inference the singer — squarely within the country music tradition” (Peterson 1997:227-8). As its various historical names (“hillbilly,” “country,” “country-western,” “folk,” and “old timey”) imply, country music has always been associated with pastoral white America and its values, such as independence, patriotism, and religion.

Like country music, the related concepts of “Texas” and “cowboy” have strong connotations. Shively (1992) found that uneducated, rural, white, and Indian men adore Western movies and consider “cowboy” a high compliment. This perspective is not universally shared; “cowboy” is a favorite epithet used by the left, both in America and abroad. Many caricatures of George W. Bush show him wearing a cowboy hat. (Indeed the popular cartoon strip *Doonesbury* has long portrayed the President as nothing but a hat.) Around the world antiwar protests not infrequently feature posters and t-shirts with variations on the slogan, “Bomb Texas” (Hanson 2003; Powell 2003). In Vienna protestors used an effigy of Bush dressed in a cowboy outfit. To the protestors and cartoonists, a “cowboy” is a self-righteous, violent rustic, and “Texas” represents all the same traits, as well as the oil industry.

Conservatives invert this caricature by embracing the image of the cowboy (Engeman 2003). For instance, they frequently use the 1952 western film, *High Noon*, as a metaphor for current events, with the cowardly townspeople representing the Europeans and the town marshal — who alone has the strength of character to fight the bandits — as the Americans and British (Woolsey 2002). This is merely a colorful metaphor for the neoconservatives’ general principle that a Hobbesian world can only be faced by a strong and

hard-headed Anglo-American alliance, with most of Europe being too weak and naïve to defend the West from barbarism (Kagan 2002). Thus one can see that the iconography of “cowboys” and “Texas” resonates with both sides of the debate as to whether world problems are best resolved by a forceful hegemon or through a balance of power and negotiations in international institutions — a debate that is at the core of the dispute over the second Gulf War.

The ideological connotations of country music and its related iconography provide my final hypothesis:

Hypothesis 3: Country stations reduced Dixie Chicks airplay more than adult contemporary stations.

Data

The primary dataset is composed of all country and adult contemporary playlists posted to *Radio and Records*’ Web site for the week ending March 22, 2002 — the first full week after the Maines’ remarks. *Radio and Records* is the premiere trade magazine for the radio industry and largely consists of airplay charts and other data tables. The print edition used to publish playlists, but now these are only found on the Web site. These lists report what songs were played by specific stations in several different “formats,” or music genres.²

For each of the 224 country and 136 adult contemporary (AC) playlists, I measured how often the appropriate Dixie Chicks single was played from March 16 through March 22. Although Natalie Maines made her controversial remark about the President on March 10, this was not reported by any major American news organization until March 13, and few newspapers took note until March 15. Therefore the week ending on March 22 captures the initial reaction to her remark, a considerable drop in airplay. Comparing the two weeks will, if anything, underestimate the consequent drop in airplay, since for half of the earlier week, rumors had been circulating at a low level, and as the first two AP stories tell, some stations had already received phone calls.

In the previous week the Dixie Chicks had two singles on the charts from their quintuple-platinum album, *Home*. “Landslide,” written by Stevie Nicks about her father’s death, was largely played on adult contemporary (soft rock) stations. Country stations played “Travelin’ Soldier,” which tells the story of a young girl’s love letters to and from a soldier who ultimately dies in Vietnam. Both songs are ballads about heartbreak that were written by other songwriters. Aside from being on different charts and “Landslide” being released first, the principle difference between the two songs is that the lyrics of “Travelin’ Soldier” deal with military themes whereas “Landslide” is more abstract. Neither song is overtly critical of the U.S.

I am interested in the change in airplay the Dixie Chicks received.³ If a song is currently on a station's playlist, the playlist provides the previous week's figures alongside the current information for that song, but if a song has dropped off a station's playlist, then the previous week's information is not reproduced. Unfortunately the website is not archived. Therefore, I only observe how many times a given station played the Dixie Chicks from March 9 to March 15 if that station continued to play them from March 16 to March 22. However, in the earlier week "Landslide" was number one on the adult contemporary chart, and "Travelin' Soldier" was number nine on the country chart. Checking against data on other singles shows that such preeminence ensures that nearly all stations will play a given song. To further test the validity of this assumption, I randomly drew a subsample of twenty-five AC and twenty-five country stations that did not play the Dixie Chicks from March 16 through March 22. By e-mail or telephone I asked their program directors, when available, and other personnel otherwise, if they had been playing the Dixie Chicks in early March, before the controversy. Thirty-four out of thirty-six respondents acknowledged that they had been playing the Chicks then. One even told me "[t]hey had a top charting record. I anticipate all country stations were playing the Chicks at or near the top of their playlists." Therefore, the most reasonable operational assumption is to impute that stations unobserved for the earlier week were in fact playing the Dixie Chicks then.

I summarize this change in airplay with airplay ratio: the number of plays in the week after the comment divided by the number of plays in the week of the comment. For my dependent variable, I log this ratio, first adding a small constant to allow values of zero to be transformed. A high score indicates that the Dixie Chicks were kept on at about the same rate as before Maines' comment. A low score indicates that they either were greatly reduced or dropped entirely.

$$r = \log \left(\frac{a}{b} + .01 \right)$$

where r = logged airplay ratio

a = airplay 3/16 – 3/22/03

b = airplay 3/9 – 3/15/03, imputed as positive value if unobserved

My independent variables fall into two categories: ownership and local political climate. To code ownership, I create a dummy set with flags for all eight chains that own at least five stations in the sample or subsample. The omitted category consists of small chains and independent stations.

I measure the local political climate through two variables at the state level and two variables at the regional level. For those radio stations in markets

TABLE 1: Summary of Variables

	Source	Unit of Measurement	Range
Logged airplay ratio	<i>Radio and Records</i>	Station	[−8.2, .15]
Owner	<i>Radio and Records</i>	Station	9 Categories
Country vs. AC format	<i>Radio and Records</i>	Station	Binary
Percent of population in military	<i>Statistical Abstract of U.S. 2002</i>	State	[0, 1.1]
Percent of 2000 vote for Bush	<i>Statistical Abstract of U.S. 2002</i>	State	[38.4, 60.3]
Percent favoring war in Iraq	ABC News Polls 8/02, 9/02	Census Division	[22.2, 45.2]
Percent favoring free speech for Communists	GSS 2000	Census Division	[55.8, 77.8]
Free Speech × Bush Vote Interaction Term	<i>Abstract and GSS</i>	State	[5.9, 51.1]

defined by Arbitron as being evenly split between two states, I averaged the two states' traits, weighted by their population sizes. The first variable is the percentage of the state's 2000 popular vote going to George W. Bush (U.S. Census Bureau 2002). This is a fine-grained measure of support for Bush among the state's politically active population, which is relevant because Maines not only denigrated the war but also insulted him personally. The second state-level measure is the percentage of the state population composed of active-duty military personnel (U.S. Census Bureau 2002). This figure proxies not only the servicemen and women themselves, but their relatives and those who depend economically on local military bases. All three groups could be expected to be especially supportive of troops in the field and defensive of policies that put them there.

To measure public opinion towards the war per se, I pool two consecutive ABC News polls from August and September of 2002, with a joint sample size of 1,264 (ABC News 2002a, 2002b). Both polls asked, "Would you favor or oppose having U.S. forces take military action against Iraq to force Saddam Hussein from power?" I measure this variable at the level of the 9-category census division and attach it to each radio station within the appropriate division.⁴

Because the notions of free speech and tolerance for dissent figure prominently in popular debate over the Dixie Chicks, I tested the effect of regional levels of tolerance using a 2000 General Social Survey question (Davis, Smith & Marsden 2000): "Now, I should like to ask you some questions about a man who admits he is a Communist. Suppose this admitted Communist wanted to make a speech in your community. Should he be allowed to speak, or not?" The GSS question does not directly address the Dixie Chicks' situation

TABLE 2: OLS Regression of Logged Airplay Ratio

	Subsample		
	All Stations	Country	A/C
R ²	.329	.272	.201
MSE	3.025	3.177	2.628
N	360	224	136
	b	b	b
Ownership dummies ^a			
Brill	-.76 (1.39)	—	—
Citadel	1.36* (.62)	2.20** (.83)	-.22 (.87)
Clear Channel	2.28*** (.39)	2.78*** (.51)	1.13* (.56)
Cox	.04 (1.19)	-.39 (1.49)	—
Cumulus	.11 (.81)	.39 (.95)	—
Entercom	1.41 (1.00)	—	.94 (1.07)
Infinity	.85 (.59)	1.87* (.80)	-.62 (.79)
Regent	-.09 (1.07)	—	-.48 (1.25)
Format: Adult contemporary ^a	2.46*** (.34)	—	—
Local politics			
Percent of population in military	-.82* (.34)	-.95† (.51)	-.71† (.42)
Percent of 2000 vote for Bush	-.73** (.25)	-1.09** (.36)	-.41 (.31)
Percent favoring war in Iraq	-.10* (.04)	-.13** (.05)	-.01 (.06)
Tolerance for dissent			
Percent favoring free speech for Communists	-.46* (.18)	-.77** (.26)	-.14 (.22)
Free speech × Bush vote interaction term	.94* (.37)	1.46** (.52)	.45 (.46)
Constant	36.78** (12.60)	60.51*** (18.07)	13.01 (15.58)

^a The reference category is composed of country stations owned by small chains or independent firms. Standard errors are in parentheses.

† p < .10 * p < .05 ** p < .01 *** p < .001

both because they were not espousing Communism and because they are being repressed by private firms, not the state. Nonetheless, the question is a reasonable proxy for attitudes towards repression of this kind. First, pacifism and disrespect for a Republican president, like Communism, are disliked by people on the right. Second, although in principle it is completely consistent to oppose state repression of nonviolent political deviants while simultaneously favoring private boycotts against them, many people, both for and against private punishment of speech, lump it in with state repression under the rubric of “censorship.” Like the ABC data, I measure tolerance at the census division level. Since tolerance should not have an effect in and of itself, but rather should suppress the effects of conservative politics, I specify both tolerance itself and the interaction of the region’s tolerance with the state’s vote for Bush. So it will be on the same zero to 100 scale as the other opinion variables. I divide the interaction term by one hundred. The interaction is meaningful since at the state level, tolerance for leftist speech and Bush’s share of the vote have only a moderate correlation.

Analysis

The analyses consist of OLS regressions of logged airplay ratio for stations on ownership, format, and local political climate. I specified the model in several different ways: OLS of the logged variable with several different constants, OLS of the untransformed variable, logistic regression of zero plays versus else, and logit event history analysis of mortality over the four weeks following the AP story. In each case the results were similar. These alternative specifications are available on request. I model the equation for country stations only, adult contemporary stations only, and all stations pooled together.

$$r = \alpha + \beta\omega_{1\dots k} + \beta\gamma + \beta\phi + e$$

Where: r = logged airplay ratio

$\omega_{1\dots k}$ = dummy variable set for chains 1 through k

γ = format

ϕ = local political climate

As the results for all three subsamples were largely consistent in direction, I will discuss them together.

The analyses show that most of the major chains either do not differ from independent firms or differ in the Dixie Chicks’ favor. Directly contrary to Krugman’s (2003) accusation and hypothesis 1, Clear Channel is actually the chain that most maintained the Chicks’ airplay. This may be because in addition to its radio interests, Clear Channel is a major concert promoter and promoted the Dixie Chicks’ then pending American tour. Clear Channel may face a conflict of interest — whether it skews its playlists to buy political favors

or does so to cross-promote its concert interests. In this case it appears that direct financial interest won decisively over enforcing hegemony.

Krueger (n.d.), however, found no relationship between the firm's concert and radio interests, so one should be cautious about assuming conflict-of-interest effects. Note that Infinity and Citadel country stations were also relatively forgiving of the Chicks. In general, the dummy set follows a trend that the larger the chain, the more it retains the Chicks on its stations' playlists. This is confirmed by replacing the dummy set with the log number of sister stations (Broadcasting and Cable 2001), which maintains the pattern, even if one excludes Clear Channel stations from the analysis (results available on request). This is congruent with the chains' greater dependence on research, which, whatever its merits, may be less effective at responding to unpredictable shocks (such as a scandal) than are less rationalized approaches to programming. Thus, we have tentative support for hypothesis 1A as the organizational inertia of large media firms may make it difficult for them to respond to political crises in the ways that the black-boxed assumptions of interest and outcome found in political economy theories would predict.

Hypothesis 2 is also supported, although the effects are weak for the adult contemporary sample. The greater proportion of the state population in military service, the greater the decline in Dixie Chicks airplay. But the effect is only marginally significant when the sample is split by format. This interpretation is supported by one program director who told me that his station's proximity to a military base factored into his decision to stop playing the Dixie Chicks. The magnitude of George W. Bush's showing in the 2000 presidential election strongly predicts a decline in Dixie Chicks airplay on country stations and the pooled sample. The percentage of the region favoring war with Iraq strongly predicts a decline, but only for country stations and the pooled sample. Although Bush's 2000 vote is statistically stronger than pro-war sentiment, the latter has a larger coefficient but more measurement error, being measured at the regional rather than state level and being a sample rather than census. Likewise, the tolerance interaction allows the main Bush effect to come through more clearly. Therefore, it may be that support for the war actually has a slightly stronger relationship with decline in the Dixie Chicks' airplay, but this is concealed by different levels of measurement error and the particulars of my interaction specification.

These variables were all intended to measure the level of disagreement with Maines' statement, but disagreement does not automatically yield censure. The interaction of tolerance for deviant leftist speech and the state's vote for Bush is large and positive, consistent with hypothesis 2A. This is partially cancelled by a negative effect of tolerance, which must be considered net of the interaction term and not by itself. Nonetheless, the overall impact shows that at the macro level the expression of tolerance for leftist dissent translates to the practice of tolerance for it. As with the other public opinion variables, adult

contemporary results are the same direction but of much less magnitude and significance than the country results.

Adult contemporary stations continued playing the Dixie Chicks at a much greater rate than country stations, supporting hypothesis 3. This may be, in part, because adult contemporary stations have slightly different audiences than country stations. For instance, both formats skew female, but country does less so (Arbitron 2002). More likely, though, is that listeners found the sentiment "we're ashamed the president of the United States is from Texas" conflicted with the values expressed by country music, but not those in the less ideologically loaded genre of adult contemporary. It is noteworthy that contemporaneously with the Dixie Chicks controversy, the top single on the country charts was Darryl Worley's "Have You Forgotten?" and several other staunchly prowar songs graced the country charts, whereas the adult contemporary charts largely avoided the issue, except for Fleetwood Mac's antiwar song, "Peacekeeper."

Not only does the pooled model show that country format stations more greatly reduce the Chicks' airplay than adult contemporary stations, but comparing the two separate samples also shows that all public opinion variables have a stronger effect on country stations. Mathematically stated, country format not only has a significant negative additive effect on airplay, but also a significant negative interaction effect with measures of conservative public opinion. This is not a mere artifact of the fact that the adult contemporary subsample is two-thirds the size of my country subsample, since mathematically adjusting the standard error of the adult contemporary (AC) equation's effects to levels commensurate with the size of the country sample fails to make the AC public opinion results nearly as significant as are the public opinion effects in the country equation. Thus, it seems that conservative public opinion affects both formats in similar ways, but the ideology of country music magnifies its impact.

Predicting and exponentiating the results, the three regression equations suggest that an independently owned adult contemporary station or a Clear Channel country station in liberal Massachusetts would likely maintain the Dixie Chicks' airplay at about the same rate as before Maines' comments, perhaps with a slight drop. The same station in moderate Florida would cut their airplay severely. In conservative Texas they would be dropped from play entirely. If the station were both adult contemporary format and owned by Clear Channel, the prediction does not change for Massachusetts or Texas, but the expected cut in Florida becomes less severe. Independently owned country stations are predicted to drop or severely cut the Dixie Chicks no matter how liberal the local political climate. Of course, the equation explains 33% of the pooled sample's variance, which is strong by social science standards, but still allows for appreciable idiosyncrasy.

Discussion

Many fans see country music as an oasis of tradition in a world where tradition is besieged by liberal elites. Many country songs “show that it is impossible to ‘go home’ because the old ways are being destroyed *everywhere*. Often, the federal government is seen as the agent of undesired change” (DiMaggio, Peterson & Esco 1972:47). Thus, when country musicians express the same values in the same patronizing tones as those liberal elites, it is not merely disagreeable, but a betrayal of their essential identity. The *Guardian* was right. The “Texas” incident was a punk rock moment, but unfortunately for the Dixie Chicks, they are not punk rock musicians with a punk rock audience. Pearl Jam, a punk-influenced rock band, made similar statements without serious consequences.

Much of the public was offended by statements against the war by Michael Moore, Martin Sheen, or Susan Sarandon. And some institutions, such as the Baseball Hall of Fame, the United Way, and the Motion Picture Academy, have sought to distance themselves from these antiwar celebrities. However, none of them suffered anything like the material consequences or vitriol leveled at the Dixie Chicks. About the same number of Americans bought the Dixie Chicks’ album *Home* as saw the theatrical release of Moore’s film *Bowling for Columbine*, but in all probability a majority, if not most, of the former favored war with Iraq, whereas almost certainly most of the latter opposed it.

My analysis has shown no evidence that corporate elites have taken vengeance against disloyalty. Boycotts and conflict are a source of instability that business seeks to avoid. The recording and radio industries thrive on star power and have no desire to destroy the viability of any of those relatively few acts who resonate with the public as powerfully as the Dixie Chicks did until March 2003.

Rather the data suggest that country music has a vengeful audience to whose wishes corporations responded with varying degrees of haste. Thus, the most important consequence of my analysis is that it turns the notions of “false consciousness” and “hegemony” on their heads. Rather than corporate interests punishing dissent and imposing conservative values on the citizenry, in this instance citizens imposed conservatism and punitiveness on corporations.

My findings suggest that, to use Herman and Chomsky’s (1988) theoretical framework, it is not ownership, but flak that was responsible for the hostile response to Maines’s insult. In fact, corporate ownership delayed censure. This may be disturbing to political economists, who tend to believe that if “corporate control” were only balanced by “democracy,” then the media would have been purged of any conservative bias. To the extent that the demos is to the right, then responsiveness to its voiced demands brings media content there as well.

Notes

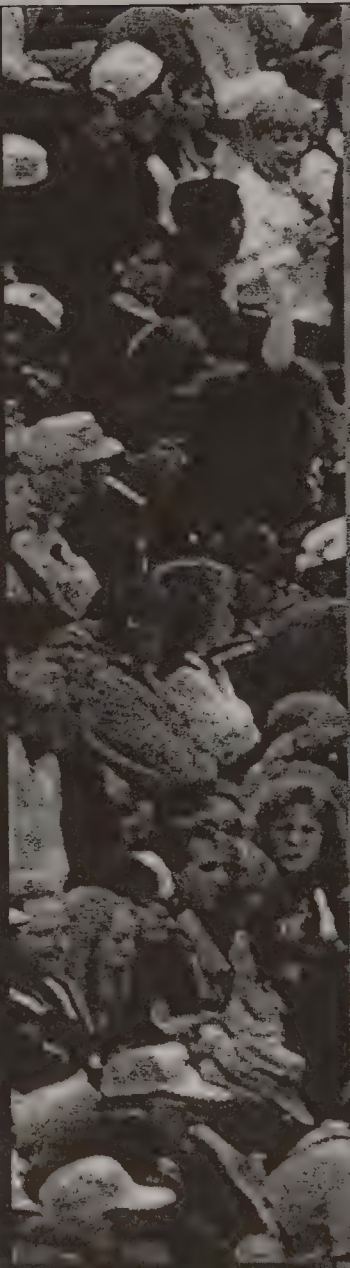
1. The search engine google.com shows no references on the world wide web to the incident predating the first Associated Press story. Its usenet archives contain the early references described here. In personal communication, Countrynation.com's editor confirmed how she discovered the story.
2. The *Radio and Records* website holds considerably more detail than the print edition did when it published the same information. It publishes playlists for twelve secular English formats, five religious formats, and six Spanish formats.
3. An alternate measure of the backlash is record sales, which also declined appreciably after the incident. This metric, unlike radio airplay, is essentially unmediated by gatekeepers. This lack of mediation has its interest but as my primary theoretical interest is the effect of ownership on gatekeeping this is for my purposes a defect. The best available data on record sales have considerably less detail than my radio airplay data. Indeed, the only one of my hypotheses that could be tested with record sales is regional politics, and that only at a crude level of aggregation. Finally, radio airplay is conceptually different from record sales in two ways. Airplay is a thing in of itself, but in some ways record sales are more appropriately conceived of as the rate of change in ownership and therefore are more sensitive to saturation. Likewise, record sales purely measure who likes an artist, not a weighted average of who likes and who hates an artist. Therefore if prior to a controversy the vast majority of people were indifferent to an artist, then both the numbers who like and who hate the artist could rise (for instance if the Chicks alienated their old audience but gained many new pacifist fans), concealing the effect of a backlash.
4. The census divisions are New England, Middle Atlantic, East North Central, West North Central, South Atlantic, East South Central, West South Central, Mountain, and Pacific.

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Explaining the Upswing in Direct Investment: A Test of Mainstream and Heterodox Theories of Globalization*

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Abstract

The internationalization of production has played an integral role in the process of globalization. Using data on direct investment outflow from 18 OECD nations and dynamic panel data methods, I explore various accounts of the recent upswing in direct investment outflow. I test a model that is informed by mainstream theories of international production and by heterodox theories of globalization. Consistent with mainstream theories, the results indicate that direct investment is affected by factors such as skill intensity and population. Support is also found for arguments that link direct investment to social democratic government, strike intensity, and union density. Contrary to the popular wisdom on globalization, the size of the social wage and de-commodification are found to be negatively related to direct investment outflow.

Recent years have witnessed a fairly substantial upswing in the level of direct investment.¹ Following the global recession of the early 1980s (and a consequent downturn in direct investment), total outflows from seventeen OECD nations grew from 27 billion U.S. dollars in 1982 to over 204 billion by 1990.²

Following the downturn of the early 1990s, outflows grew further still, reaching nearly 316 billion by 1996. The average annual rate of growth between 1982 and 1996 was roughly 21%. This contrasts with an earlier period of slower, yet still impressive, growth in the outflow of direct investment from the OECD nations. Following the recession of the early 1970s, for instance, outflows of

** I thank Patricia McManus, Jason Beckfield, Clem Brooks, Scott Long, François Nielsen, Howard Aldrich, Ken Bollen, Craig Calhoun, and the late Rachel Rosenfeld for their comments on earlier drafts of this article. I also thank Lane Kenworthy and Jelle Visser for providing some of the data. Direct all correspondence to Arthur S. Alderson, Department of Sociology, Indiana University, Ballantine Hall 744, Bloomington, IN 47405-6628. E-mail: aralders@indiana.edu.*

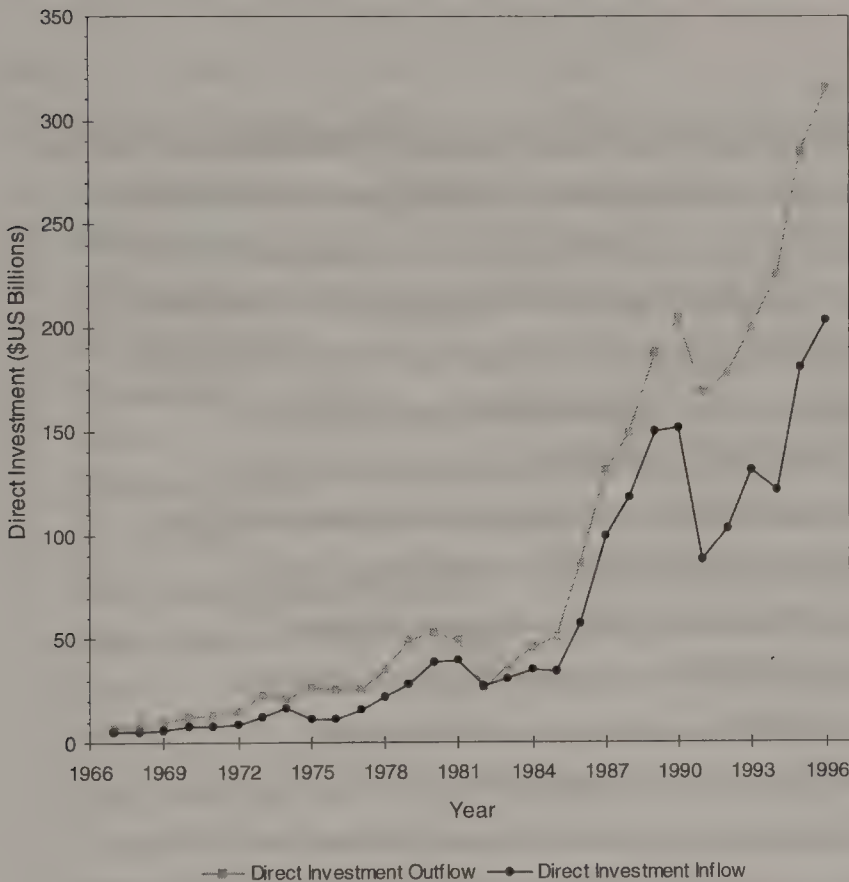
direct investment from these same seventeen nations grew from 21 billion dollars in 1974 to 53 billion by 1980, at an average annual rate of about 17%.

Since the early 1970s, the rate of growth of direct investment has outpaced that of international trade, and direct investment is now the single most important form of external development finance for developing countries. As such, the growth of direct investment has played a central role in a larger process of globalization, a process that has captured the attention of analysts of diverse perspective and discipline (e.g., Albrow & King 1990; Chase-Dunn 1989; Featherstone 1990; Giddens 1990; Harvey 1989; Letto-Gillies 1992; King 1991; Lash & Urry 1987; Robertson 1992; Therborn 2000; Väyrynen 1999; Waters 1995). This interest has been fueled by the sense that the most recent round of globalization, which finds its origins — according to a variety of authors — in the late 1960s, has exhibited a number of unique features and raised a number of profound questions, questions concerning everything from the representation of identity to the sovereignty of the nation-state. Although “globalization” (as noun) only emerged as a significant concept in academic circles in the last fifteen years or so, it has become in that short period of time a subject of intense scholarly and public interest (Robertson 1992:8).

In this article, I contribute to the sociological literature on globalization by exploring one of the central questions that surrounds the globalization problematic; namely, what accounts for the dramatic upswing in direct investment that recent years have witnessed? How are we to understand the increasing globalization of production? In addressing this question, I develop a model of direct investment that is informed by mainstream theories of international production (Dunning 1988) and by a heterodox theory of globalization that takes its lead from the literature that has emerged around the “New International Division of Labor” and “Globalization of Production” accounts of the contemporary world-economy.³ A central aim of this article is to take a first step toward determining what these heterodox accounts of globalization might have to contribute to our understanding of the internationalization of production.

In what follows, I introduce the data set and discuss the growth of direct investment and its changing spatial patterning. I discuss the most widely employed theory of direct investment — John Dunning’s (1988) eclectic theory of international production. From this, I develop a baseline model, rooted in established theory and empirical research, which provides a background against which to test alternative accounts of globalization. I discuss one such alternative that views globalization, in part, as a labor control strategy and situates contemporary globalization in the context of the end of the postwar “Golden Age” (Marglin & Schor 1990). The results of an analysis of direct investment outflow from 18 OECD nations from 1969-95 are then presented and discussed.

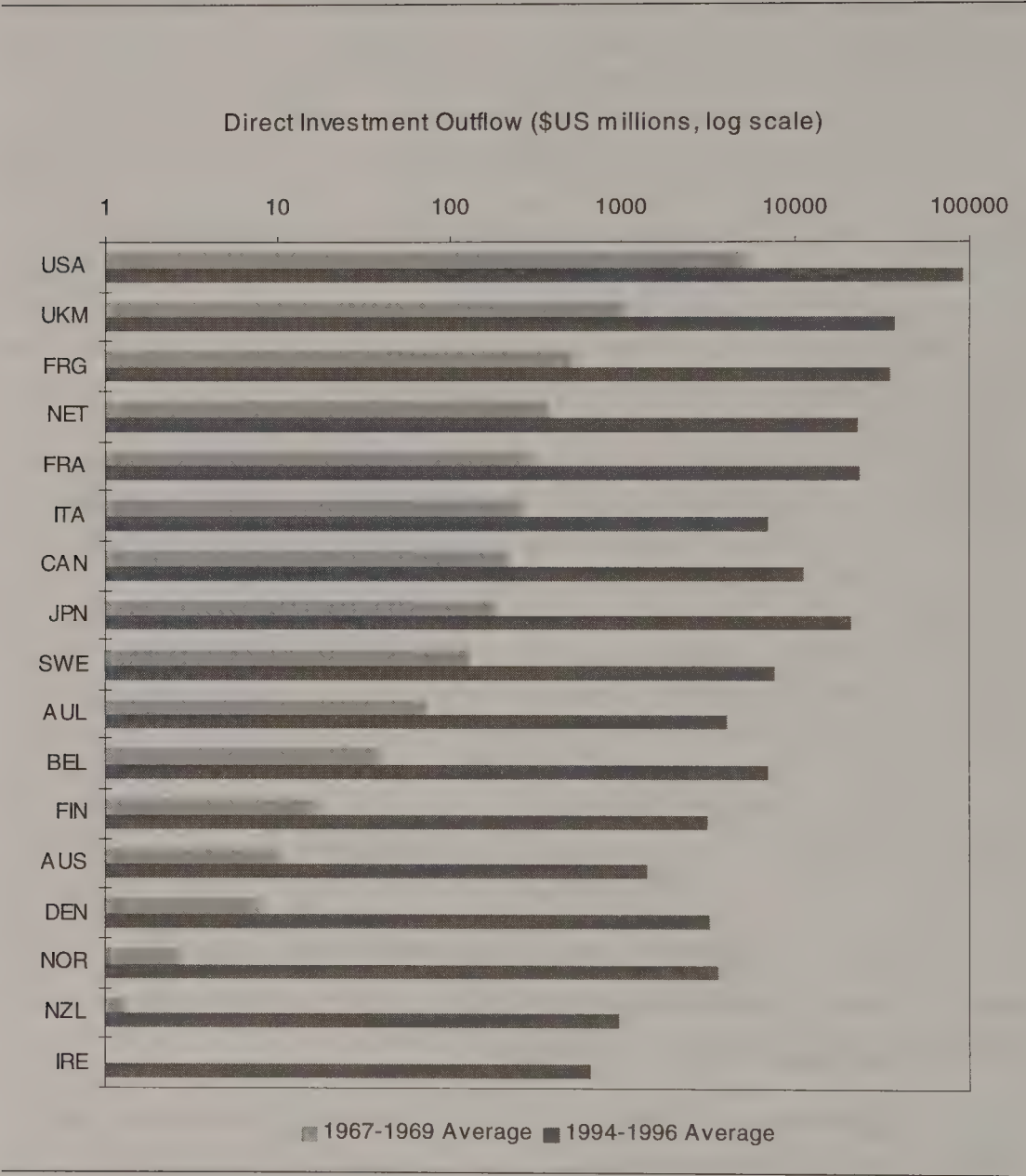
FIGURE 1: Total Direct Investment Outflow and Inflow from 17 OECD Nations, 1967-1996



Direct Investment: Trends and Patterns

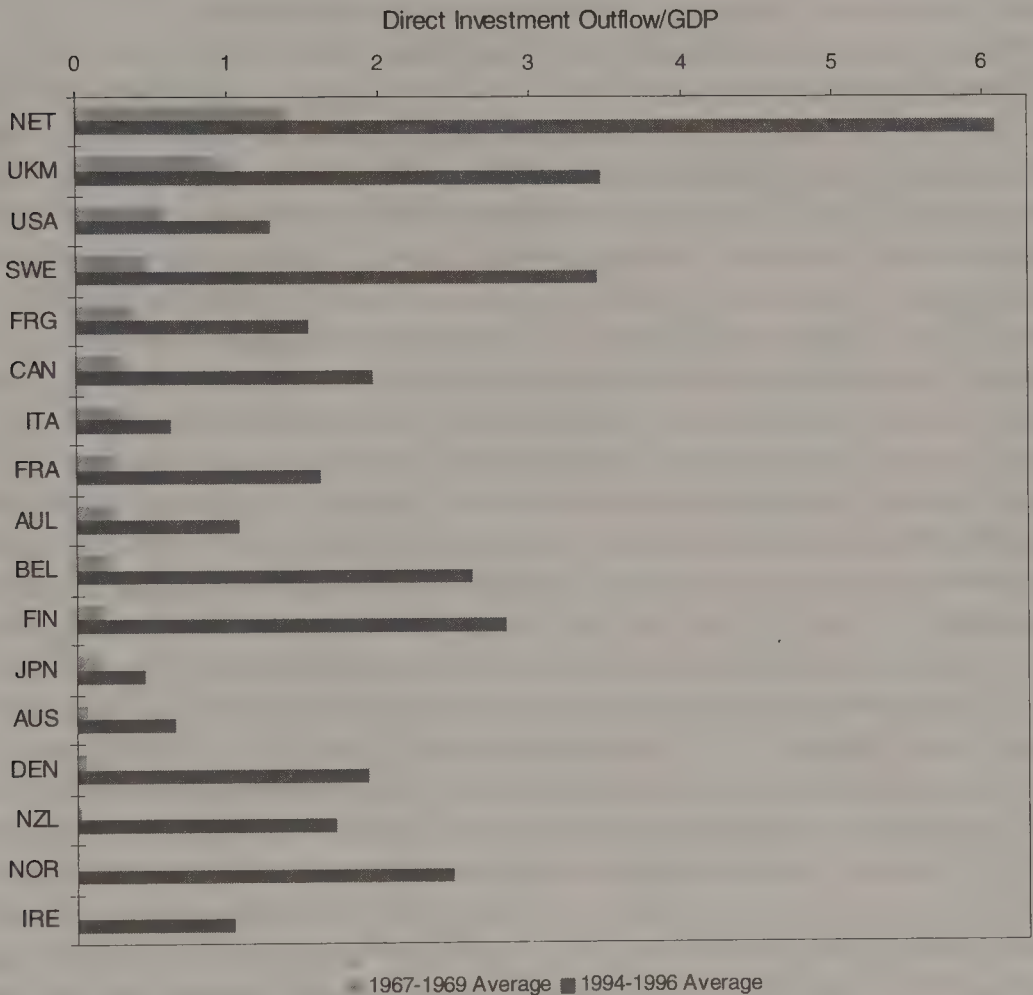
Data on total inflows and outflows of direct investment (DI) for the 17 OECD nations noted above are presented in Figure 1. In addition to noting the growth of outflows of direct investment, one can also note the parallel growth of inflows of DI across the same period. Given that well over 95% of the world's direct investment originated in the OECD countries in the period under study, this indicates that these countries also received the lion's share of all direct investment across the period under consideration. Indeed, as late as 1996, the advanced industrial countries received over three-fifths of total world direct investment. This contrasts strikingly with the situation in the early twentieth century. In 1914, for instance, it is estimated that two-thirds of all direct investment was hosted by *developing* countries (Dunning 1988). The high

FIGURE 2: Direct Investment Outflow from 17 OECD Nations, 1967-69 and 1994-96



proportion of direct investment currently flowing into the advanced industrial countries relative to the developing nations across the period under study may seem paradoxical to the casual observer, and for a number of reasons. For one, it runs directly counter to many popular accounts of globalization that suggest that the internationalization of production is to be understood primarily as the result of the efforts of multinational enterprises to exploit regional and international differences in factor costs (particularly labor costs). While such “capital flight” may be a real (and growing) phenomenon, most direct

FIGURE 3: Direct Investment Outflow/GDP from 17 OECD Nations, 1967-69 and 1994-96



investment flows between countries with roughly comparable labor market conditions.

Lying behind the general shift of direct investment away from the developing world across much of the last century was a shift in the sectoral composition of direct investment. The bulk of direct investment before the Second World War was devoted to agriculture and raw materials. Following the war there was a shift toward direct investment in manufacturing, a form of DI which has always been disproportionately sited in the developed world (Dunning 1988). Since the 1960s, manufacturing has become the dominant sector for direct investment. It is important to note, however, that the 1980s and 1990s witnessed a significant increase in direct investment in services,

particularly finance and trade-related services (UNCTC 1988). Rather than representing a displacement of manufacturing direct investment, the increased globalization of services “has led to increased [DI] in both manufacturing and services” (Ietto-Gillies 1992:26); that is, it has further facilitated the servicing of foreign markets by manufacturing multinational enterprises (hereafter MNEs).⁴ Service sector direct investment, as with manufacturing DI, has tended to be disproportionately sited in advanced industrial societies.

In addition to these changes in the global distribution and sectoral composition of direct investment, there have been major changes in the cast of actors on the international investment stage. Before the Second World War, Britain was by far the largest direct investor. It is estimated, for instance, that it held roughly 46% of the world’s accumulated stock of direct investment in 1914 (Dunning 1988:46). Following WWII, the U.S. quickly rose to a position of dominance and had by 1960 attained the sort of hegemonic position which Britain had enjoyed in the decades surrounding the turn of the twentieth century, holding 48% of the world’s stock of direct investment. As Figure 2 (log scale) indicates, moving into the 1970s, the U.S. continued to be the world’s largest direct investor. Well over half of world direct investment was undertaken by American firms in the 1967-69 period. However, in the period from 1994 to 1996, we see that the U.S.’s share of total world outflows declined while the share of other industrial nations increased (and in a number of cases, markedly so). In sum, the story of direct investment in the contemporary period is no longer simply the story of American hegemony.

Weighting the outflow of direct investment by gross domestic product gives one a sense of the relative importance of direct investment for these societies. (See Figure 3.) Once normalized, a different picture emerges. While the U.S. was home, as just noted, to more than half of world direct investment in the 1967-69 period, this amounted to a comparatively modest proportion of gross domestic product, just over one half of one percent. Indeed, relative to the size of their economies, direct investment was more important for Holland and Britain than it was for the U.S. Looking to the 1994-96 period, one can note some rather dramatic changes. Direct investment outflow is now typically equivalent to well over 1% of gross domestic product (i.e., the relative importance of direct investment for all societies has grown) and the U.S. now falls in the bottom half of the OECD countries in terms of outflows as a proportion of total economic activity.

There are, then, a number of patterns and trends that come together to make the contemporary period both interesting and unique. Nearly all direct investment originates in the industrial world and the majority of it terminates there as well. In terms of its sectoral composition, most direct investment occurs in the manufacturing sector, but a growing proportion is directed toward services. Finally, direct investment, in both absolute and relative terms, is of growing importance for all industrial societies. All of these factors point to the

increasing importance of the multinational enterprise and its activities for the contemporary world economy. And it is with the MNE that most theories of direct investment, heterodox and mainstream alike, find their origin.

Explaining the Globalization of Production

While direct investment is a practice with a long history, no proper “theory of direct investment” existed before the 1960s. In the world assumed by classical and neoclassical trade theory, for instance, direct investment was not an object of concern (Kindleberger 1969), as traditional trade theory assumed perfect markets and factor immobility (including capital immobility). Marxian critics of the classical economists were also largely silent on the question of international production.⁵

While figures such as Luxemburg (1971 [1913]), Lenin (1970 [1917]), and Bukharin (1987 [1917]) were certainly attentive to the issue of imperialism, their accounts by and large rooted international production in the ascendancy of finance capital and the accompanying realization and underconsumption problematics. Consequently, these treatments of the late nineteenth/early twentieth century round of globalization were, to varying degrees, directed more toward an examination of financial capital movements and portfolio investment than they were toward direct investment.⁶ Theoretical developments in the 1930s and 1940s did, however, lay the groundwork for what would later become full-fledged theories of direct investment (see Dunning 1981). Presently, the reigning account is John Dunning’s “eclectic theory” of international production (Dunning 1977, 1981, 1988). Dunning combines various strains of thinking on international production in a restatement that is both general and highly sensitive to its complexities. Given that most of the theories of direct investment developed since the 1960s have eventually found a home under the wide umbrella of Dunning’s eclectic approach, I organize my discussion of theories of direct investment around Dunning’s work and its precursors.⁷

THE ECLECTIC THEORY OF INTERNATIONAL PRODUCTION

Dunning’s “eclectic theory” brings together three more or less independent lines of thinking on international production that have emerged since the 1960s: (1) the “why” or “how is it possible” approach rooted in industrial organization theory, (2) the “where” approach that has occupied location theory, and (3) the “how” approach which has developed as an extension of the theory of the firm (Dunning 1988:2-7).

The “why” that industrial organization theory brings to the question of international production is essentially this: *Why does direct investment happen;*

that is, how is it possible that a foreign firm might outcompete domestic firms in their own markets? It is assumed that direct investment involves costs and risks that domestic investment does not. There are communication and information costs rooted in the different cultural, linguistic, legal, and political environments in which the firm will have to operate, exchange rate risks, and costs associated with the less favorable treatment that such a firm is likely to receive from the host country government. Conversely, domestic firms can be expected to have informational and regulatory advantages in their home market. Clearly, then, for international production to occur, the foreign firm must possess some set of countervailing *ownership-specific advantages* that domestic firms do not.⁸

Location theory is concerned with the “where” of international production: *Where does direct investment happen?* Here it is generally assumed, if only implicitly, that the firm is in possession of ownership-specific advantages sufficient to overcome the costs and risks of foreign production. The concern of location theory is thus to explain where such firms choose to make direct investments. Most of the early work in this area took the form of case studies (e.g., Safarian 1966 [Canada]; Johnstone 1965 [France]; Dunning 1958 [Great Britain], Deane 1970 [New Zealand]), but, more recently, survey studies and cross-national quantitative analyses have also been employed in an effort to identify the *location-specific advantages* that attract direct investment (e.g., Cheng & Kwan 2000; Clegg 1987; Clegg & Scott-Green 1999; Group of Thirty 1987; Newbould, Buckley & Thurwell 1978; Shepard, Silberston & Strange 1985; Root & Ahmed 1979; Schneider & Frey 1985; Yang, Groenewold & Tcha 2000). The location advantages identified in this literature are many in number. Among the factors that have received the greatest attention are market size, tariff barriers, costs, and investment incentives, and research and development and skill intensity.

From this focus on ownership and location advantages some of the distinguishing features of the behavior of the multinational enterprise and of direct investment begin to emerge. Most centrally, it suggests that we should observe direct investment when (and only when) ownership-specific advantages favor a firm in one country, while location-specific advantages favor a foreign country (Hirsch 1976). If the balance of ownership and location advantages favors firms in the same nation, no direct investment will occur. That would seem clear, but it begs the question of why a firm that possesses ownership advantages would opt for the costlier and riskier route of direct investment. Why would it not simply service foreign markets via exports or through a licensing agreement with a domestic firm? Why, in essence, would a firm forgo the market mechanism in carrying out its transactions? This question is addressed in the “how” approach that has flowed from extensions of the theory of the firm.

How does direct investment happen? Plainly, it happens when firms internalize markets across national boundaries. Starting from this observation and building

on Coase (1937), a number of scholars have explained international production in terms of the benefits that firms can reap by internalizing markets for intermediate products in a context of imperfect markets or market failure (e.g., Buckley & Casson 1991, 1976; Rugman 1996, 1980, 1981; Magee 1977; Swedenborg 1979; Teece 1981, 1985).⁹ Most generally, replacing imperfect external markets with internal hierarchies is argued to enable firms to maintain control over key sources of competitiveness and to minimize transaction costs. This focus on internalization thus helps to explain why firms might choose to service foreign markets via direct investment rather than exports or licensing agreements — there are internalization advantages in the context of imperfect markets or market failure. Internalization theory specifies the conditions under which firms will opt for direct investment over licensing or exports and vice versa and, as a result, has answered the key question left open by industrial organization and location theory (see Buckley & Casson 1981; Buckley & Davies 1980; Grosse 1985; Lall 1980).

Dunning's eclectic theory brings each of these strands of thinking together and can be summarized as follows: direct investment will occur when (1) ownership-specific advantages favor a firm located in one country, (2) location-specific advantages favor a foreign country, and (3) it is in the interest of the firms possessing ownership advantages to internalize internationally.

The Baseline Model

The questions that motivate this research are typically posed at the aggregate level: "What explains the globalization of production?" "Why are the economies of some societies becoming more 'globalized' than others?" "What features of a society tend to make it more 'globalized'?" Consequently, I use aggregate (national-level) data to answer them. The use of aggregate data raises two important issues. First, it means that industry-specific and market structural factors that may shape a firm's level of involvement in international production cannot be directly incorporated into the analysis. While this is a limitation of the analysis, there are some benefits as well. The use of aggregate data means that I am able to avoid the troublesome issue of defining a risk set or representative sample of organizations. Instead, the analysis is geared to the entire population of organizations in each country. While many of the arguments arising from the theory of the firm and industrial organization theory touched on above are articulated at the level of the firm, these can be addressed using aggregate data with the caveat that the arguments (and results) relate to the *average* firm in the *average* industry.¹⁰ Second, the use of aggregate data means that I will not focus on the locational endowments of *host* countries in my analysis of direct investment outflow. In the language of migration studies, I focus in this article exclusively on "push" factors. This restriction is regrettable, but it is one that is entirely typical of the empirical literature on

direct investment outflow (e.g., Clegg 1987; Dunning & Narula 1996; Pearce 1993). Most analyses of direct investment outflow aggregate across host countries and are thus unable to address location-specific determinants.¹¹

At the aggregate level, Dunning's eclectic theory lends itself to four hypotheses. Central to the logic of the theory of international production is the idea that for firms to internationalize effectively, they must possess advantages that enable them to overcome the special costs and risks they bear relative to indigenous firms. Technological superiority is usually given a prominent place among the factors most often invoked to account for the ability of MNEs to compete successfully in foreign markets (e.g., Buckley & Casson 1976; Clegg 1987; Dunning 1981; Dunning & Narula 1996; Owen 1982; Lall 1980, Swedenborg 1979; Vernon 1971; Wolf 1977). While such superiority may arise from a variety of sources, it would seem, at base, to be strongly rooted in ongoing programs of research and development. The literature on international production argues strongly in favor of the following hypothesis: *The intensity of research and development is positively related to direct investment outflow.*

Skill or human capital intensity is a related factor that is also often viewed as giving rise to analytically distinct advantages and thus to direct investment. Skill intensity (among nonoperatives) may be conceptualized as both an ownership and internalization advantage: it is an ownership advantage that enables foreign firms to outperform domestic firms in their own markets and it is a readily internationally transferable asset that is likely to prompt direct investment over other forms of international involvement (Clegg 1987; Dunning 1981; Dunning & Narula 1996; Juhl 1979; Lall 1980; Pugel 1981, 1978; Swedenborg 1979). This gives rise to the hypothesis that: *Skill or human capital intensity is positively related to direct investment outflow.*

In an influential piece, Caves (1971) identified skill in product differentiation and marketing as a key ownership advantage generating international production. Later researchers (e.g., Lall 1980) have also noted the highly transferable nature of such skills and the strong incentives toward internalization their possession likely create. I employ a measure of *advertising intensity* as a proxy for such abilities and test the following hypothesis: *Advertising intensity is positively related to direct investment outflow.*

Finally, casual empiricism indicates that small countries tend to be disproportionately involved in international production (see Figure 3 for instance). Quite likely, this is the result of the lower level of ecological diversity (i.e., the lower diversity of location advantages) in small societies, a factor that would prompt an "outward" orientation on the part of their firms. This interpretation of the effect of size gives rise to the following hypothesis: *Population is negatively related to direct investment outflow.*

BUILDING ON THE ECLECTIC THEORY: HETERODOX THEORIES OF GLOBALIZATION

The eclectic theory is not without limitations. While the interest of firms in achieving an efficient allocation of their resources may be central to direct investment decision making, other scholars, as Ietto-Gilles (1992) has noted, have placed just as much emphasis on the MNE's desire to pursue strategies *over and above* those dictated by concerns for efficiency and the *active* role of the MNE in the creation of market imperfections. This strategic, "externalist" approach to the multinational enterprise and its activities is highlighted in recent thinking on the strategizing of firms in relation to labor in the context of globalization.

Globalization As a Labor Control Strategy

There exists an enormous literature on the range of "new" corporate strategies that emerged in the wake of the various crises of the early 1970s — the shift from "Fordist" to "flexible" production (e.g., Piore & Sabel 1984; Gordon, Edwards & Reich 1982), the rise of "disorganized capitalism" (e.g., Lash & Urry 1987; Offe 1985), the emergence of a new international division of labor (e.g., Adam 1975; Fröbel, Heinrichs & Kreye 1980), and so on. Rather than attempt to review this literature, I highlight a theme in this literature that suggests that multinationality has become a labor control strategy in the last few decades.

For there to exist "advantages" to multinationality, there plainly must be some set of problems that are created or exacerbated by further internalization in the home market, and these problems must be resolvable or at least substantially attenuated by international internalization (Ietto-Gillies 1992). As regards labor, one can begin with the well-known observation that firm size and rates of unionization tend to be positively related. For the MNE or nascent MNE, this means that the potential benefits of internalization and further growth in the home economy must be weighed against the potential costs associated with the development of a more strongly organized workforce. A firm with the appropriate ownership advantages may therefore find it more advantageous to internalize internationally than nationally, as doing so enables it to reap the advantages of internalization while avoiding the costs associated with further growth in its home economy. As Ietto-Gillies (1992:138) has argued, this advantage is achieved "because transnationalization of production generates a situation in which labor — although working under the same ownership umbrella — is more dispersed and fragmented and thus finds it more difficult to organize itself, compared to a situation in which internalization takes place in a domestic environment, whether within the same plant or on a multiplant basis."

There are two features of this argument that it is important to highlight. First, it does not imply the “capital flight” or “social dumping” logic of popular imagination; that is, the firm is not required to invest in a low-wage nation or a nation in which labor is unorganized in order to reap benefits from internationalization. Even when direct investments are made in nations with comparable labor market conditions, the mere act of opening additional (foreign) operations will bring (unlinked) unions into competition with each other for employment within the firm and may therefore make labor cheaper and more flexible (e.g., Cowling & Sudgen 1987; Huizinga 1990).¹² Second, while multinationality is expected to strengthen the MNE’s hand in relation to both its foreign and domestic labor force, it is expected that it will be especially effective in relation to the labor force in the host nation. This is because the MNE, as a “new entrant,” is to an important extent free to set its own terms, unburdened by historical and cultural “baggage.”¹³

In sum, multinationality may yield multiple benefits. On the one hand, it results in the dispersion and fragmentation of labor and, on the other, frees the firm to a large extent from the bounds of national industrial history and culture. It thus offers firms the opportunity to enhance or reassert their control over the production process. And it is this question of control over the process of production that heterodox theory sees as being at the root of contemporary globalization.

The Crisis of the Postwar Social Structure of Accumulation

To situate the emergence of direct investment as a labor control strategy, one can take as reference point the changes that have occurred since the late 1960s in what Gordon, Edwards, and Reich (1982) have termed the *social structure of accumulation*. Given that this story has already been told under a number of different guises (e.g., Armstrong, Glyn & Harrison 1984; Bluestone & Harrison 1988; Bowles 1982; Bowles et al. 1990; Brady & Wallace 2000; Hoogvelt 1997; Harvey 1989; Kotz et al. 1994; Reich 1997), I very briefly discuss two key elements of the postwar social structure of accumulation and the crisis that they entered into in the 1970s.

The long boom enjoyed across the developed world in the decades following World War II has often been argued to have been attributable, in considerable part, to two elements of the political economy of the industrialized world in the era following the war.¹⁴ The first was the establishment and institutionalization of a “capital-labor accord” or “social contract” under which a relative labor peace was maintained. In exchange for the “de facto acceptance of the logic of profitability and markets as the guiding principles of resource allocation,” labor was assured that “minimal living standards, trade union rights, and liberal democratic rights would be protected, that massive unemployment

would be avoided, and that real incomes would rise approximately with labor productivity” (Bowles 1982:52). The second was the expansion of the Keynesian welfare state. In addition to signaling an attempt via fiscal policy to manage aggregate demand in the aim of smoothing out the business cycle, this also meant the growth of the “social wage” and the partial “de-commodification” of labor. That is, a growing share of societal resources came to be distributed according to social/political criteria rather than market criteria, and the ability of individuals to maintain a socially acceptable livelihood without market participation was likewise enhanced (Esping-Anderson 1990).

These elements of the postwar social structure of accumulation are argued to have had at least two important long-run consequences. First, they were integral to a shift in the larger social distribution of power. Whether measured by left-party electoral success rates, rates of unionization, the share of national income going to labor, or social welfare spending, the evidence indicates a clear shift in the distribution of power in the bargaining arena (broadly defined), away from capital and toward labor in the decades following the war (Bowles 1982; Korpi 1983; Schott 1984). Second, and related, these elements resulted in the progressive decline of the disciplinary power of the market and, consequently, hindered, in the long term, the accumulation of capital: as near-full employment was achieved and maintained. As labor parties achieved further electoral successes; as rates of organization grew; as the social wage expanded; as labor was partially decommodified; so the logic of profitability and market allocation on which capitalism depends was attenuated (e.g., Bowles 1982; Offe 1984, 1985).

This set of arrangements entered into a crisis in the early 1970s. In addition to the shocks associated with rising energy prices, the breakdown of the Bretton Woods agreement, and the emergence of a newly competitive international environment, many scholars root the crisis in the improved bargaining position of labor in the postwar period. As labor pressed its advantage, and as the various other crises of the early seventies hit, profitability declined and a general economic slowdown ensued across the OECD nations. The sharp recession of 1973-74, however, was not to be a “normal” one. Unemployment grew, but so did nominal earnings. From the perspective of the then-standard Phillips curve analysis, this was quite peculiar, for as unemployment grows, nominal wages (and general price inflation) should decline. While there were earlier hints of a systematic problem — contractions throughout the 1950s and 1960s in the U.S., for instance, had not been accompanied by falling prices and wages as they had before WWII (Sachs 1980) — the stickiness of wages in a downward direction and their general nonresponsiveness to market forces (i.e., growing unemployment) became amply visible by the mid-1970s. And it was, in largest part, the improved bargaining position of labor that lay behind this wage stickiness (Schott 1984).

In sum, the economies of the OECD countries (and the institutional arrangements in which they were embedded) that had produced a postwar “golden age” of solid growth, low unemployment, and low inflation fell into a period of stagnation typified by high unemployment and high inflation. It is against this background that globalization emerges as a labor control strategy. Given the inability of actually existing markets to check, concretely, the growth of wages, and, more generally, the bargaining position of the most solidly organized segments of the labor force, ample incentive existed for firms to, in essence, forgo the market in favor of a globalizing (internationally internalizing) strategy to enhance or reassert their control over the production process.

Testing Heterodox Theory

Assessing this account of globalization involves testing a range of hypotheses concerning the impact of the broader, national-level institutional environment on direct investment. Very simply put, if direct investment since the late 1960s has indeed been undertaken as a labor control strategy, one would expect that outflows would, *ceteris paribus*, be greatest from those nations in which the bargaining position of labor is strongest. The “strength of labor” can be viewed as multidimensional, having both “public” and “private” dimensions. For the sake of convenience, the hypotheses to be tested are divided into those relating to welfare state and those relating to labor.

The Welfare State, the Social Wage, and Decommodification

The notion that left-party control of government is an investment disincentive is a general one. Empirical analyses of direct investment in developing societies often include political risk indices, a dimension of which is occasionally the political ideology of the governing regime, but they rarely include independent measures of the political complexion of governments (see Schneider & Frey 1985 for an exception). To my knowledge, no study of direct investment in the advanced industrial societies has taken the ideological makeup of government under consideration as a potential determinant of outflows. This is somewhat surprising, since regime changes across time and space are readily visible and their occurrence may make for important changes in the domestic investment environment. I will thus investigate the following hypothesis: *Left-party control of government is positively related to direct investment outflow.*

One can of course be more precise in specifying the exact nature of the changes in the domestic investment environment wrought by regime changes. The above discussion suggests that one should focus on two factors: the size of the social wage and the decommodification of labor.

The size of the social wage is usually proxied by total social security transfers as a percentage of GDP. As Esping-Andersen (1990:115) has argued, this

“reflects in a crude way . . . the share of a nation’s resources that are distributed according to social rather than strict market criteria.” The size of the social wage is of course determined by a range of factors in addition to left party control of government. But, regardless of its ultimate source, the expansion of the social wage is argued by a number of observers to blunt the disciplinary force of the market. If direct investment has been employed as a labor control strategy in recent decades, one would expect to find support for the following hypothesis: *The size of the social wage is positively related to direct investment outflow.*

Where the social wage serves as an indicator of redistributive effort, de-commodification captures the differing degrees to which individuals in different societies are able, given the same level of total social welfare expenditure, to opt out of the market while maintaining a “socially acceptable” standard of living (Esping-Andersen 1990).¹⁵ Put differently, de-commodification can be viewed as a labor market institution that has long-run effects on the work/leisure calculus of workers. The greater the degree of de-commodification, the greater the worker’s autonomy from the discipline of the market, the higher the effective minimum wage, and the more circumscribed the employer’s control over labor. If direct investment has been employed as a method of enhancing or reasserting the firm’s control over labor, one would expect to find that: *Decommodification is positively related to direct investment outflow.*

The Strength of Labor

The effect of unionization on the outflow of direct investment from the advanced industrial societies has not been systematically explored in prior research.¹⁶ Consistent with what Leahy and Montagna (2000) characterize as the “conventional wisdom” on direct investment, I pursue the line of thought that suggests that unionization will tend to raise the costs of production and reduce the flexibility of management. As was proposed above, for firms with the appropriate ownership advantages, direct investment may represent a mechanism of reducing such costs and reestablishing flexibility. This globalizing strategy *vis à vis* labor should be particularly attractive to firms sited in highly unionized environments. I will thus investigate the hypothesis that: *Union density is positively related to direct investment outflow.*

Labor unrest, as measured by strike intensity, is another indicator of the strength of labor. The issue is complicated by the question of whether one should view labor unrest as an indicator of bargaining strength or weakness. On the one hand, Korpi (1983) has shown that the incidence of industrial conflict across the entire postwar period was lowest in nations exhibiting high working class mobilization. On the other, the expansion of strike activity in

some nations in the 1980s appears to have enabled labor movements in them to head off the union decline that was otherwise general across the OECD nations in that period (Griffin, McCammon & Botsko 1990; c.f., Shalev 1992; Western 1995). This latter view argues for strike intensity as an indicator of bargaining strength. I pursue this interpretation, consistent with the above discussion, and test the hypothesis that: *Strike intensity is positively related to direct investment outflow.*

Another element of what Leahy and Montagna (2000:81) describe as the conventional wisdom on direct investment is the idea that MNEs prefer “decentralised firm level wage bargaining processes over centralised ones.” As an indicator of the balance of power between the organizations of labor and capital, one would thus expect that: *The level of wage-setting coordination in a nation is positively related to direct investment outflow.*

In nations in which bargaining is national in scope and wage guidelines are centrally fixed, one would expect firms to engage in more direct investment in an effort to establish flexibility and control over the workforce. In nations in which bargaining is fragmented and local, one would expect, *ceteris paribus*, less of a push toward globalization.

Data

The dependent variable is *direct investment outflow/GDP (square root)*. Direct investment data are drawn from the IMF’s *Balance of Payments Statistics Yearbook* (various years). Current GDP in U.S. dollars is drawn from the World Bank’s (2000) *Global Development Network Growth Database*. “Direct investment” is defined by the IMF (1977:136) as “investment that is made to acquire a lasting interest in an enterprise in an economy other than that of the investor, the investor’s purpose being to have an effective voice in the management of the enterprise.” The key element of this definition — that which distinguishes direct investment from portfolio investment — is its requirement of “management interest” or control. Control is operationalized in terms of a certain level of ownership. The benchmark IMF/OECD Common Reporting System for Balance of Payments Statistics suggests a minimum of 10% ownership for outflows or inflows of investment to be classified as direct investment.

Research and development intensity is measured as total expenditure for research and development as a percentage of GDP. Data on research and development expenditure come from UNESCO (various years). Current GDP in national currency are primarily from the IMF’s (various years) *International Financial Statistics Yearbook*, supplemented with data from the World Bank (2000).

Skill intensity is measured as percent labor force in professional, technical, managerial, and administrative occupations. Data are drawn from various editions of the ILO's *Yearbook of Labor Statistics*.

Advertising intensity (log base 10) is measured as total advertising expenditure as a percentage of GDP. Data on advertising expenditure are from Starch INRA Hooper (various years) and Euromonitor (1995a, 1995b). These data are expressed in national currency. Current GDP in national currency are primarily from the IMF's (various years) *International Financial Statistics Yearbook*, supplemented with data from the World Bank (2000).

Population (log base 10) data are from the World Bank (2000).

The strength of left parties is assessed as the degree of *social democratic control of government* (log base 10). Social democratic control is measured as the percentage of cabinet posts held by social-democratic parties (and parties to their left) plus the percentage of votes received by social-democratic parties (and parties to their left) in the most recent election. Data on both variables and details regarding the classification of parties and primary sources appear in Armingeon, Beyeler, and Menegale (2000).

The *social wage* is measured as total social security transfers as a percentage of GDP. Data on total social security transfers are drawn primarily from the OECD's *Historical Statistics* (various years) and supplemented with data from various country yearbooks.

Decommodification is measured as an index of decommodification in sickness, maternity, and unemployment programs. The measurement scheme is inspired by Esping-Andersen (1990:54) and is described in detail in Alderson (1997). Decommodification in sickness, maternity, and unemployment programs is measured in terms of (1) the replacement rate — ratio of benefits to usual earnings — for an average production worker in the first 26 weeks of sickness, maternity, or unemployment; (2) the number of weeks of employment required to qualify for benefits; (3) the number of waiting days before benefits are paid; (4) the number of weeks that benefits can be maintained. These individual items are standardized and then summed to arrive at decommodification scores for each of the three programs. The overall decommodification measure is an index of decommodification in each of the three programs.¹⁷

Nations with high values on the summary decommodification index are nations that offer sickness, maternity, and unemployment programs with high replacement rates, require little (or no) employment to qualify for benefits, require no waiting period before benefits are paid, and offer benefits for long periods of time. Nations with low values are nations that offer low replacement rates, require extensive periods of employment to qualify for benefits, require long waiting periods before benefits are paid, and offer benefits for short periods of time. Alternatively, nations can score low if they do not offer a given program

or offer programs on a means-tested basis. Data are from the U.S. Department of Health and Human Services (various years).

Union density is measured as net union membership (i.e., gross union membership minus retired and unemployed members) as a percentage of wage and salaried employees. Union membership data are primarily from Visser (1996), supplemented with data from Ebbinghaus and Visser (2000), Visser (1989), Bain and Price (1980), and various country yearbooks. Data on wage and salaried employees are primarily from the OECD (1995), supplemented with data from various country yearbooks.

Strike intensity (log base 10) is measured as working days lost to labor disputes / labor force * 100. Data on the number of workers involved in labor disputes is drawn from various editions of the ILO's *Yearbook of Labour Statistics*. Data on the total labor force are from the World Bank (2000).

Data on the level of *Wage-Setting Coordination* are from an unpublished paper that was kindly provided by Lane Kenworthy (2001). The measure draws on Soskice (1990), Golden, Wallerstein, and Lange (1997), Iversen (1999) and the *European Industrial Relations Review*. Wage setting coordination is measured as an index with five categories, ranging from 1 when wage bargaining is fragmented (i.e., confined to individual firms or plants) to 5 when wage bargaining is highly coordinated. High degrees of coordination can be achieved through classical tri-partite corporatist arrangements (e.g., Sweden), through coordination of industry bargaining by a central union confederation (e.g., Austria), or through coordination of bargaining by employer organizations (e.g., Japan). Details regarding the index and the motivation for the scoring appear in Kenworthy (2001; see also Hicks & Kenworthy 1998).

Methods

The temporal relation between direct investment and its determinants is not well specified in the empirical literature. Annual relationships may be unduly influenced by extreme observations or by short-term or cyclical fluctuations. To address these concerns, I analyze three-year averages. Period averaging also partially overcomes the averaging that is intrinsic to the data for some of the variables (which rely on interpolation between benchmark observations). Considering the 27-year period from 1969 to 1995, the data set thus contains a maximum of 157 observations: 9 observations (1969–71 to 1993–95) on seventeen nations and 4 observations (1984–86 to 1993–95) on Switzerland.¹⁸ Owing to lags and differencing (see below), the number of observations analyzed is reduced to 121 in the models estimated below.

Dynamic Panel Data Models

To examine the determinants of direct investment outflow from the OECD countries, I estimate a series of fixed-effect dynamic panel models. These rely on the generalized method of moments (GMM) technique developed by Arellano and Bond (1991). One can begin with the familiar static panel data model:

$$y_{it} = \alpha + x_{it}\beta + v_i + \varepsilon_{it} \quad (1)$$

where $i = 1, \dots, N$ and $t = 1, \dots, T_i$ and, by assumption, $E[\varepsilon_{it}] = 0$ and $\text{Var}[\varepsilon_{it}] = \sigma_\varepsilon^2$. The subscript i denotes the country and t the period of observation. T_i denotes the number of observations for country i , the indexing reflecting the unequal numbers of observations across countries. In equation 1, α represents the general intercept and v_i the country-specific intercepts summarizing the effects of unmeasured time-invariant factors.

Implicit in equation 1 is the assumption that new decisions are made in each period about whether or not to engage in direct investment and that such decisions are independent of the decisions taken in the last period. This assumption is questionable. One would expect the direct investment generating process to be typified by a degree of inertia owing to (1) the long time horizon associated with direct investment (as opposed to portfolio investment), which will tend to “lock” firms into a particular pattern of behavior; (2) other institutional factors (e.g., contractual obligations), which may prevent firms from switching from direct investment to other methods of servicing foreign markets; (3) the experience gained in servicing foreign markets through direct investment, which may itself generate inertia; (4) the fact that a good bit of the fixed cost of direct investment is borne in the initial period, making additional investment in the next more likely; and (5) the earnings made on investments in period $t - 1$ may be reinvested in the recipient country (and will appear in the balance of payments figures as new outflow in period t). Also implicit in equation 1 is the assumption that the variables contained in x_{it} are strictly exogenous. Again, there are reasons to question this assumption: by reallocating employment across national boundaries in a skill-biased fashion, direct investment outflow might alter the occupational structure, affecting skill intensity; interpreted as “capital flight,” direct investment outflow might influence government policy in the direction of “improving” the domestic investment climate via reductions in the social wage or the recommodification of labor; by reallocating production tasks across national borders, direct investment outflow may alter the intensity of research and development or the degree of unionization, and so on. The consequences of the violation of these assumptions of equation 1 are potentially severe. Ignoring the dynamics of the direct investment generating process can be interpreted as a specification error that may produce biased and inconsistent estimates. Treating x_{it} as strictly exogenous, when they are not, creates an error correlation between x_{it} and

ε_{it} , violating normal regression assumptions and, again, producing biased and inconsistent estimates.

To relax the above assumptions, one can begin with the dynamic panel model

$$y_{it} = \gamma y_{it-1} + x_{it}\beta + \alpha + v_i + \varepsilon_{it}. \quad (2)$$

To remove the fixed effects v_i , one can take the first difference of equation 2 to produce

$$\Delta y_{it} = \Delta \gamma y_{it-1} + \Delta x_{it}\beta + \Delta \alpha + \Delta \varepsilon_{it} \quad (3)$$

where Δ represents the difference. The removal of the fixed effects — all time-invariant, country-specific effects — means that the model analyzes only within-country variation in the data. This is appropriate as both the eclectic theory and the heterodox alternative are conventional in viewing changes within countries, rather than between countries, as driving direct investment outflow. Regressing Δy_{it} , the change in the three-year average of direct investment outflow (e.g., direct investment outflow/GDP_{1993–95} – direct investment outflow/GDP_{1992–90}) on Δy_{it-1} , the lagged change in the three-year average of direct investment outflow (e.g., direct investment outflow/GDP_{1992–1990} – direct investment outflow/GDP_{1989–87}) and Δx_{it} , the change in the three-year average of the explanatory variables (e.g., skill intensity_{1993–95} – skill intensity_{1992–90}) means that the first two observations for each country are lost and the total number of observations is reduced from 157 to 121.

Unless the time dimension of the panel is very large, the presence of the lagged dependent variable on the right-hand side of equation 3 means that ordinary least squares will produce biased estimates, as the error term from estimating Δy_{it} will be correlated with the autoregressive term from Δy_{it-1} (Baltagi 1995; Nickel 1981). Anderson and Hsiao (1981) propose using either the twice-lagged level y_{it-2} or difference $y_{it-2} - y_{it-3}$ as an instrument for Δy_{it-1} , as these will be correlated with the lagged dependent variable, but not with the error term. Arellano and Bond (1991) propose a generalized methods of moments (GMM) variant of the Anderson-Hsiao estimator that uses all available lagged values of y_{it-z} ($z > 1$) as instruments for Δy_{it-1} in the first differenced equation 3. While involved computationally, the reasoning is straightforward: if, as Anderson and Hsiao (1981) show, the twice-lagged level of the dependent variable y_{it-2} is not correlated with the error term ($\varepsilon_{it} - \varepsilon_{it-1}$), then any additional lags will be uncorrelated with the error term as well and therefore valid instruments. By exploiting all possible orthogonality conditions, the Arellano-Bond estimator has been shown to be significantly more efficient than the Anderson-Hsiao estimator. As was suggested above, the endogeneity of other regressors may also be an issue. When this is the case, these variables can also be instrumented using lagged values of x_{it-z} ($z > 1$). In the analysis below x_{it} are treated as predetermined.

The consistency of the Arellano-Bond GMM estimator is based on the assumption that there is no second-order serial correlation in the first-differenced residuals. This can be assessed using the test proposed by Arellano and Bond (denoted “M2” in the tables). As heteroscedasticity may be an issue in these data, I use the robust variant of the one-step Arellano-Bond estimator. This provides standard errors and test statistics that are robust to cross-section and time-series heteroscedasticity. Finally, the results of a Wald chi-square test of the joint significance of all of the variables except the constant is reported (denoted “Wald” in the tables). The models were estimated using the STATA statistical program (Stata Corporation 2003).

Multivariate Outliers and Collinearity Diagnostics

Outliers and influential cases are often a problem with cross-national data. Diagnostic tools such as Studentized residuals, Cook’s D, and partial regression plots are available to identify such cases (Belsley, Kuh & Welsch 1980; Bollen & Jackman 1985; Wilkinson 1990a, 1990b). These classical diagnostics are strictly justified only for situations in which a *single* observation is problematic. I thus use a newer, robust outlier detection algorithm that is appropriate even when several observations are outlying and/or influential (Hadi 1992, 1994). Applying the Hadi procedure with first-differenced data, I identified a number of outliers. Excluding these cases had no substantive impact, so I retain them for the analysis. Collinearity is also often a problem with such data. Collinearity diagnostics performed on first-differenced Ordinary Least Squares versions of the models estimated below do not reveal any problems.

Results

The main GMM regression results are presented in Tables 1 and 2. Model 1 presents results for the baseline model derived from the eclectic theory of international production. The positive effect of skill intensity is consistent with the hypothesis that firms located in countries that exhibit superior managerial and technical skills will tend to engage in direct investment over other forms of involvement in the international economy. Population has a negative effect that is significant at the ten-percent level in model 1 and, looking ahead, is significant at the five-percent level in a number of intermediate models and in the full model (model 8). Research and development intensity and advertising intensity, while signed in a fashion consistent with expectations, do not have effects that are significant at conventional levels. Research and development intensity is significant at the ten percent level in the full model.

The results for the lagged dependent variable are also important to note. The significant positive coefficient of lagged direct investment outflow indicates

TABLE 1: Unstandardized Coefficients from Arellano-Bond GMM
Regressions of Direct Investment Outflow/GDP on Selected
Independent Variables — 18 OECD nations, 1969-1995

	Model 1	Model 2	Model 3	Model 4
Direct investment outflow/GDP _{t-1} ^a	.237* (.116)	.177 (.116)	.226 (.120)	.230* (.115)
Research and development intensity	.176 (.120)	.179 (.114)	.245 (.130)	.200 (.120)
Skill intensity	.022** (.008)	.030** (.010)	.025** (.008)	.024* (.009)
Advertising intensity ^b	.758 (.565)	.816 (.576)	.333 (.598)	.711 (.583)
Population ^b	-2.038 (1.106)	-2.214* (1.045)	-2.417* (1.135)	-1.905 (1.114)
Social democratic government ^b		.235* (.112)		
Social wage			-.027 (.015)	
De-commodification				-.002 (.002)
Constant	.054* (.022)	.052* (.022)	.068** (.024)	.049* (.023)
M2	-1.08	-1.05	-1.08	-1.09
Wald	35.78***	34.97***	46.28***	39.77***

Notes: All variables are first-differenced. Robust standard errors in parentheses. "M2" is a test of the null hypothesis of no second-order serial correlation in the first-differenced residuals. The test is distributed N(0,1). Wald is a chi-square test of the null hypothesis that all of the coefficients except the constant are zero.

^asquare root

^blog base 10

* p < .05 ** p < .01 *** p < .001 (two-tailed tests)

that the process that generates direct investment outflow is typified by a nonnegligible degree of inertia. Net of all else, a one-unit increase in the square root of direct investment outflow in year $t - 1$ is associated with a 0.237 increase in the square root of direct investment outflow in year t . In original units, this represents, for a country at the median, an increase in Direct Investment Outflow/GDP of 0.433 — a change equivalent to over four-tenths of a percent

**TABLE 2: Unstandardized Coefficients from Arellano-Bond GMM
Regressions of Direct Investment Outflow/GDP on Selected
Independent Variables — 18 OECD Nations, 1969–1995**

	Model 5	Model 6	Model 7	Model 8
Direct investment outflow/GDP _{t-1} ^a	.247* (.111)	.226* (.115)	.242* (.117)	.160 (.104)
Research and development intensity	.161 (.124)	.166 (.110)	.174 (.121)	.186 (.111)
Skill intensity	.022** (.008)	.018* (.008)	.023** (.008)	.026* (.011)
Advertising intensity ^b	.814 (.674)	.879 (.549)	.786 (.568)	.826 (.649)
Population ^b	-2.059 (1.081)	-2.057 (1.076)	-2.010 (1.120)	-2.634* (1.065)
Social democratic government ^b				.270* (.109)
Social wage				-.027 (.015)
Decommodification				-.005** (.002)
Union density	.001 (.005)			.006 (.007)
Strike intensity ^b		.152* (.067)		.198* (.081)
Wage setting coordination			-.004 (.030)	-.016 (.027)
Constant	.055* (.022)	.075** (.023)	.051* (.022)	.104*** (.026)
M2	-1.07	-.63	-1.08	-.45
Wald	36.35***	81.41***	37.87***	158.67***

Notes: All variables are first-differenced. Robust standard errors in parentheses. M2 is a test of the null hypothesis of no second-order serial correlation in the first-differenced residuals. The test is distributed N(0,1). Wald is a chi-square test of the null hypothesis that all of the coefficients except the constant are zero.

^a square root

^b log base 10

* p < .05 ** p < .01 *** p < .001 (two-tailed tests)

TABLE 3: Estimated Effects of Temporally Unstable Parameters from Arellano-Bond GMM Regressions

	Model 9	Model 10	Model 11
Population ^a	-1.939 (1.167)		
Population x Globalization era	-.248*** (.063)		
Social democratic government ^a		.117 (.116)	
SD government x Globalization era		.246*** (.054)	
Union density			-.002 (.007)
Union density x Globalization era			.006** (.002)
M2	-.91	-.83	-.65
Wald	224.38***	1839.47***	180.09***

Notes: Models 9-11 also include all variables in model 8 and an intercept for the 1981-95 period. Results for these variables are not shown for convenience. All variables are first-differenced. Robust standard errors in parentheses. M2 is a test of the null hypothesis of no second-order serial correlation in the first-differenced residuals. The test is distributed N(0,1). Wald is a chi-square test of the null hypothesis that all of the coefficients except the constant are zero.

^aLog base 10

* p < .05 ** p < .01 *** p < .001 (two-tailed tests)

of GDP. The effect of lagged direct investment outflow can be explained by a combination of factors: (1) the long time horizon associated with direct investment (as opposed to portfolio investment), which will tend to “lock” firms into a particular pattern of behavior; (2) other institutional factors (e.g., contractual obligations), which may prevent firms from switching from direct investment to other methods of servicing foreign markets; (3) the experience gained in servicing foreign markets through direct investment, which may itself generate inertia; and (4) the earnings made on investments in year $t - 1$ may be reinvested in the recipient country (and will show up in the balance of payments figures as new outflow in year t).

The results of the M2 test indicate that one cannot reject the null hypothesis of no second-order serial correlation in the first-differenced residuals. M2 is

insignificant in all subsequent models as well, indicating that the instruments used for Δy_{it-1} in the GMM regressions are consistent.¹⁹ The significant Wald test indicates that one can reject the null hypothesis that all of the coefficients in model 1 except the constant are zero. The Wald test is highly significant in all subsequent models. My strategy from this point forward is to introduce the variables derived from heterodox theories of globalization into this model in the aim of ensuring conservative tests for the effects of the various institutional factors that are argued to have contributed to the growth of direct investment in the past few decades.

Model 2 introduces the measure of social democratic control of government into the baseline model. The idea that left party control of government acts as a disincentive for investment in the domestic economy is a general, if understudied, one. Perhaps in no other realm has the threat of exit been so regularly (and, perhaps, effectively) deployed by employers and their representatives in the last few decades. The main elements of post-war social democratic policy, once viewed as effective mechanisms for domesticating capitalism, are now often argued to have become an unsustainable drag on international economic "competitiveness." As a result, it is often argued, barring neo-liberal reform, firms will increasingly choose to invest abroad. To the extent that this is true, one would expect to observe a positive relationship between the degree of left party control of government and the outflow of direct investment. The results presented in model 2 lend support to this argument. Social democratic government has a significant positive effect on direct investment outflow, consistent with the hypothesis that firms will respond to the more regulative stance of left governments with globalization. Do these results hold when other institutional factors are introduced into the model? Model 8 suggests that they do: social democratic government continues to have a significant positive effect on direct investment outflow.

The effect of the size of the social wage is examined in model 3. A number of observers have argued that the growth of the social wage in the post-war period blunted the disciplinary force of the labor market (e.g. Bowles 1982; Offe 1984, 1985). As the share of national resources distributed by social (political) criteria grew, the bargaining position of labor improved and, it has been argued, the accumulation of capital was hindered. Globalization can thus be seen as a strategy designed to induce labor market flexibility and to enhance or reassert the control of employers over the production process. In this light, one would expect to observe a positive relationship between the size of the social wage and the outflow of direct investment. Interestingly, the results of model 3 suggest just the opposite. The size of the social wage has a *negative* effect on direct investment, one that is significant at the ten percent level. When other institutional variables are introduced into the model (model 8), the social wage again has a negative effect that is significant at the ten percent level.

Where the size of the social wage is an indicator of redistributive effort, the de-commodification index captures the differing degrees to which people in different societies are able, given the same level of welfare expenditure, to opt out of the market while maintaining a “socially acceptable” standard of living (Esping-Andersen 1990). As labor is decommodified, the purchase of labor becomes circumscribed and labor markets become relatively unresponsive to market forces. Globalization can thus be seen as a strategy for inducing flexibility and re-introducing market forces into the domestic labor market. One would expect to observe a positive relationship between decommodification and the outflow of direct investment. The results presented in model 4 do not support this expectation. The coefficient of decommodification is negative and insignificant. Looking ahead to model 8, one finds that when other institutional factors are controlled for, decommodification has a significant *negative* effect on direct investment outflow: countries in which labor has been more decommodified have experienced less capital flight in recent decades than other countries.

The results of models 2-4 focus on the effects of the growth of the regulatory welfare state on direct investment outflow. Net of the baseline model, the degree of social democratic control of government has a significant positive effect on direct investment, consistent with the argument that employers have used globalization as a strategy to enhance or reassert their control over production. The social wage and decommodification, however, are signed in a fashion that is inconsistent with expectations. Viewed together, these results suggest that while left government is associated with increased direct investment outflow, labor market institutions such as the size of the social wage and degree of decommodification are not. Indeed, the results indicate that firms in countries where labor enjoys a high social wage and has been relatively decommodified are less likely to engage in direct investment than firms in countries with more “flexible” labor markets.

In model 5 in Table 2, I examine the conventional wisdom that suggests that unionization prompts “capital flight.” Unions are assumed to raise the costs of production and to reduce the flexibility of management, and direct investment is argued to be a mechanism through which firms reduce such costs and reestablish flexibility. As such, one would expect to observe a positive relationship between the level of unionization in a nation and the amount of direct investment undertaken by that nation’s firms. Interestingly, the results of model 5 do not support this expectation. Have critics of globalization simply been too quick to accept elements of the conventional wisdom on globalization? Piven and Cloward (2000), for instance, argue that much of the rhetoric of “exit” that typifies discussions of globalization is more reflective of what they describe as a concerted campaign on the part of employers to deny the

possibility of labor's power than it is of concrete practice.²⁰ The results of model 5 would seem to support this view.

Model 6 introduces the measure of strike intensity into the baseline model. Some have argued that labor militancy has enabled labor movements in a few nations to head off the union decline that has otherwise been general across the OECD nations in recent decades (Griffin, McCammon & Botsko 1990). This view argues for treating strike intensity as an indicator of bargaining strength. To the extent this is the case, one would expect to observe a positive relationship between strike intensity and the outflow of direct investment. The results of model 6 bear out this expectation. Strike intensity has a significant positive effect on direct investment outflow. Looking ahead to the full model (model 8), we find that this effect is robust to the introduction of other institutional factors into the model: strike intensity continues to have a significant positive effect on direct investment outflow.

The conventional wisdom on globalization suggests that one should observe high levels of direct investment outflow from countries in which bargaining is national in scope and wage guidelines are centrally fixed, as firms should prefer decentralized, firm-level wage bargaining to centralized bargaining. As noted above, such wage setting coordination can also be achieved outside the context of classic tri-partite corporatism: High degrees of coordination can be achieved through the harmonization of industry bargaining by central union confederations or by employer organizations. Regardless of its origin, however, the bulk of the literature on globalization strongly suggests that firms will respond to the constraints of centralized wage-setting coordination with globalization. Model 7 tests this argument. The coefficient of the wage-setting coordination index is neither correctly signed nor statistically significant. This finding can be interpreted in light of a minority view in the literature that emphasizes a rather different "face" of globalization — that "having to do with employers' heightened dependence on stable and predictable relations with labor at the plant level, in the context of tightly coupled production networks and the demands of producing at high quality on a just-in-time basis" (Thelen & Kume 1999: 478; see also Streeck 1987). It is also consistent with the model of Leahy and Montagna (2000), which suggests that under certain conditions MNEs should favor centralized bargaining.

Models 5-7 explore the effects of the strength of labor in the "private" (or quasi-private) sphere and test the view that globalization should be understood as a response to the gains made by labor in the immediate postwar period. Net of the baseline model, strike intensity is found to have a significant positive effect on direct investment outflow. This persists when other institutional variables are introduced into the model. Union density and wage setting coordination, however, are not significant in either context. The results thus indicate that firms located in labor militant environments are more likely to engage in direct investment than firms located in labor quiescent environments,

while being insensitive to the level of unionization and of wage setting coordination.

The results for the full model (model 8), while foreshadowed above, are important and bear some examination. Net of the baseline model and the lagged dependent variable, decommodification has a significant negative effect on direct investment, while social democratic government and strike intensity have positive effects. The social wage has a positive effect that is significant at the ten percent level. Among the variables in the baseline model, all remain correctly signed, but only skill intensity and population are significant at conventional levels. Research and development intensity is significant at the ten percent level. The effect of skill intensity is interpreted above. The negative effect of population is consistent with the casual empiricism that suggests that small countries will be heavily involved in international production. The positive effect of research and development intensity is consistent with the hypothesis that firms in countries that enjoy technological superiority will tend to be heavily involved in international production.

Given that the explanatory variables are rendered in different scales, it is difficult to make any judgment about the *substantive* significance of the variables of interest (i.e., their relative impact on direct investment outflow) based on the regression coefficients alone. As this paper deals with a range of contentious issues with policy implications, this is an important concern. While many have criticized the practice of using standardized coefficients to assess the “relative importance” of regression coefficients (e.g., Duncan 1984), it is worth noting the ordering of effects that results from standardization. The variables in model 8 are ordered in terms of the absolute size of their standardized coefficients as follows: social democratic government (std. $\beta = .202$), strike intensity (std. $\beta = .187$), direct investment outflow/GDP (std. $\beta = .160$), social wage (std. $\beta = -.142$), decommodification (std. $\beta = -.130$), advertising intensity (std. $\beta = .116$), skill intensity (std. $\beta = .112$), research and development intensity (std. $\beta = .110$), population (std. $\beta = -.094$), union density (std. $\beta = .074$), wage setting coordination (std. $\beta = -.051$). Thus, among those variable indicated as significant in model 8, social democratic government has the largest standardized effect and population has the smallest. As regards the range, the effect of a one standard deviation increase in population is only 47% as large as that of a one standard deviation increase in social democratic government.

There is no R^2 measure of fit for the Arellano-Bond dynamic panel data model. The reader may wonder how well model 8 explains the phenomenon at hand. One way of addressing this issue is to compare the observed trend in direct investment outflow to that predicted by the model. The average level of DI outflow (square root) from the 18 OECD nations in the analysis grew from 0.624 in 1975–77 to 1.264 in 1993–95, or from the equivalent of about

0.4% of GDP to about 1.6% of GDP.²¹ Averaging across $\Delta \hat{y}_{it}$ (the predicted first-differences) for the 18 OECD nations in the analysis and using the lagged level to convert the series back into levels, model 8 predicts that DI outflow (square root) will grow from 0.669 in 1975–77 to 1.218 in 1993–95, or from the equivalent of about 0.4% of GDP to about 1.5% of GDP. The model thus does a reasonable job of predicting the upswing in direct investment outflow from the OECD countries.

TEST FOR STRUCTURAL CHANGE

In recent years it has become conventional to date the start of the most recent round of globalization to the onset of the global recession of the early 1980s. Figure 1 suggests that there is a good bit of sense to this periodization. If the most recent round of globalization dates to the early 1980s, then the pooling of data before this period with data after it might conceal a structural change in the direct investment outflow function estimated in model 8. Heterodox accounts of globalization strongly suggest that just such a structural change has occurred in the “era of globalization.” Globalization is argued to represent a response to the “crisis of the post-war social structure of accumulation,” implying that DI outflow in the contemporary period has been driven by a set of factors distinct from those that drove DI outflow during the post-war Golden Age. To the extent that this is true, one might expect the various institutional variables employed to test these arguments to have stronger and more theoretically consistent effects in the era of globalization than in the period preceding it. For instance, perhaps temporal instability explains the anomalous finding of negative effects of decommodification and the social wage. To investigate the structural stability of the results, I performed a Chow test (Chow 1960) on the sample split into two periods, 1969–80 and 1981–95. The χ^2 (11) test statistic of 181.09 is highly significant, suggesting that the process that determines direct investment outflow has indeed undergone a structural change between the two periods: one can reject the null hypothesis that all of the parameters are temporally stable.

A limitation of the Chow test is that it does not tell one whether the structural change is due to period-varying intercepts, slopes, or both (Gujarati 1995). To determine what drives the rejection of the null hypothesis in the Chow test, I estimated a series of interactive models that allow an intercept for the 1981–95 period and allow the slopes of the explanatory variables to vary by period. In all, three of the eleven explanatory variables in model 8 were found to have slopes that differ significantly across periods: population, social democratic government, and union density. In Table 3, I show how each of these parameters vary over time in models that include an indicator variable for the

“globalization era” (i.e., the 1981–95 period) and all of the other variables in model 8.²²

Over model 8, model 9 introduces an indicator variable for the 1981–95 period and an interaction between population and this indicator. The results indicate that population had a significantly larger negative effect on direct investment outflow in the globalization era ($-1.939 - 0.248 = -2.187$) than it did in the preceding period (-1.939). These results mean that small countries have been even more disproportionately involved in international production in the period since the early 1980s than they were before. Model 10 allows the slope of social democratic government to vary by period. As one can note, the slope of social democratic government was significantly larger in the 1981–95 period ($0.117 + 0.246 = 0.363$) than it was in the 1969–80 period (0.117). This means that left government has had a considerably larger effect on the decision of firms to invest abroad in the contemporary period than it did in the period before the early 1980s. Finally, if the slope of union density is allowed to vary by period, we find that the conclusion drawn above that firms are insensitive to the level of unionization was premature. Union density has a positive effect on direct investment outflow, but that effect is confined entirely to the 1981–95 period. Firms have thus grown more sensitive to the level of union density in their home economies since the early 1980s.

Taken together, the results presented in Table 3 place an interesting coda on the interpretation of model 8. They are consistent with the idea that some of the institutional factors identified in heterodox accounts of globalization are of growing importance for the determination of direct investment. It is worth noting, however, that the results of this analysis do not challenge the finding that decommodification and the social wage have negative effects on direct investment.

Conclusions

The globalization of production has spawned a large academic and popular literature. Among the more intriguing explanations for the recent upswing in direct investment is the idea that globalization can be understood as a response to the crisis of the postwar social structure of accumulation. In the decades following WWII, near-full employment was achieved, left parties enjoyed notable electoral successes, rates of organization grew, the social wage expanded, and labor was decommodified. As a result, the bargaining position of labor was enhanced and the disciplinary power of the labor market declined. Since the early 1970s, there has been a notable upswing in international production. At the same time, there is much talk of de-unionization, labor quiescence, the decentralization of bargaining in the interests of creating flexible labor markets and, of course, much talk of welfare state retrenchment.

Naturally, many analysts have attempted to link the two processes. It is suggested that globalization can be understood as the response of firms to the improved bargaining position of labor in the immediate postwar period. To reassert control over the production process, firms have increasingly rejected actually existing markets in favor of a globalizing (internationally internalizing) strategy.

Using dynamic panel data methods that are robust to time-series and cross-sectional heterogeneity and that address the potential endogeneity of the explanatory variables, I find support for three of the six hypotheses inspired by this account of globalization. *Social democratic control of government* has a positive effect on direct investment outflow. This parameter is not temporally stable, as left government is found to have an effect that is more than twice as large in the post-1981 period as it is in the pre-1981 period. *Strike intensity* has a positive effect on direct investment outflow. Finally, *union density* has a small positive effect on direct investment outflow. This parameter is also temporally unstable, as the positive effect of union density is confined entirely to the period since the early 1980s. The findings for social democratic government and union density are consistent with the idea that the most recent round of globalization is associated with a structural change in the direct investment outflow function.

The three remaining hypotheses inspired by heterodox accounts of globalization fare less well. *Wage setting coordination* is nonsignificant net of the baseline model and in the context of the full model. The size of the *social wage* is incorrectly (negatively) signed and the effect of this variable is significant at the ten percent level by a two-tailed test. *Decommodification* is found to have a negative effect on direct investment outflow, a finding that is contingent on controls for other institutional factors. The unexpected findings for decommodification and the social wage are especially intriguing in light of the “conventional wisdom” on globalization, which suggests that the high social wages and decommodification of labor associated with the growth of the welfare state have become an unsustainable drag on international economic “competitiveness,” prompting firms to go abroad in search of greener pastures. Rather than leading firms to invest abroad, decommodification and social wage appear to discourage direct investment outflow. One interpretation of these *ceteris paribus* negative relationships is that they reflect the varieties of capitalism that are operative across the OECD (e.g., Hall & Soskice 2001). Decommodification and the growth of the social wage have proceeded furthest in what Block (1994) has termed “social rights states.” As described by Ó Riain (2000:195), such states are “based on limiting the range of feasible market strategies by strengthening society and setting social limits to market action.” Given high social wages and decommodification, firms in social rights states are simultaneously constrained from pursuing “low road” growth strategies and pushed into the pursuit of high-productivity, value-added industrial

development. In this context and — importantly — *ceteris paribus*, one might expect to observe *less* capital flight from such countries, as exit has simply been less of an option for the firms within them. The heterodox account tested in this article misses this possibility because, like much of the literature on globalization, it is largely inattentive to the embeddedness of capitalism, both nationally and internationally (Evans 1995).

As regards the baseline model, the analysis also establishes empirically that direct investment outflow from the OECD countries is positively associated with *skill intensity* and negatively related to *population*. The coefficient of population is temporally unstable, with a larger negative effect in the period after 1980 than in the period before. *Research and development intensity* and *advertising intensity* are correctly signed, but are never significant at conventional levels. Research and development is significant at the 10% level in the baseline and full models. Finally, the *lagged dependent variable* is found to have a positive effect on direct investment outflow that is significant in the baseline model and a number of intermediate models, but insignificant in the full model.

All of the advanced industrial societies in the data set have experienced an upswing in direct investment outflow over the 1969–95 period. What are the mechanisms behind this trend? Factors associated with the eclectic theory of international production such as skill intensity and population continue to play an important role: superior managerial and technical skills continue to drive firms toward direct investment over other forms of involvement in the international economy, while smaller countries continue to be disproportionately involved in international production. Interestingly, the importance of population has grown over time. Factors associated with heterodox accounts of globalization such as social democratic government and union density are also of growing importance. Consistent with the idea that the early 1980s represent a structural break in the direct investment function, both variables have comparatively large effects in the post-1980 period, and comparatively modest effects in the period that preceded it. Labor unrest, as indicated by strike intensity, is found to be positively related to direct investment outflow. Several factors discussed in the heterodox literature on globalization can be exonerated as causes of the upswing in direct investment outflow. Firms appear to be insensitive to the level of bargaining — the level of wage setting coordination has no notable effect on direct investment. The size of the social wage and decommodification, far from driving firms abroad, are found to be negatively related to direct investment outflow. The present analysis thus offers the beginning of an explanation of the upswing in international production. Further research is necessary if we are to fully understand this important dimension of economic globalization.

Notes

1. A *direct investment* is one that involves an ongoing, managerial interest on the part of the investor in the firm or operation invested in. The IMF (1977:136) defines direct investment as “investment that is made to acquire a lasting interest in an enterprise operating in an economy other than that of the investor, the investor’s purpose being to have an effective voice in the management of the enterprise.” As such, direct investment is distinct from portfolio investment: “long-term bonds and corporate equities other than those included in the categories for direct investment and reserves” (IMF 1977:142).
2. These seventeen nations are Australia, Austria, Belgium, Canada, Denmark, Finland, France, Germany, Ireland, Italy, Japan, Netherlands, New Zealand, Norway, Sweden, Great Britain, and the United States. Switzerland, which also appears in the analysis below, did not report direct investment data until 1983. For this reason it is excluded from Figures 1, 2, and 3. Data come from the IMF’s *Balance of Payments Statistics Yearbook* (various years).
3. See Gordon (1988) for an early review that is both appreciative and highly critical. In terms of “foundational” statements, the “New International Division of Labor” account is most strongly linked with Fröbel, Heinrichs, and Kreye (1980), while the “Globalization of Production” school is probably best represented by Bluestone and Harrison (1982) and Piore and Sable (1984).
4. Recent years have also witnessed the emergence of what is often referred to as “alliance capitalism” — the replacement, both along and across value-added chains, of arm’s length transactions with a variety of cooperative arrangements between firms (Dunning 1997: 14). This interesting aspect of the globalization of the economic sphere is unfortunately not captured with direct investment data.
5. A case can be made (e.g. Dunning, 1988), however, for viewing Marx’s work ([1867] 1977) as a direct ancestor of developments in innovation theory and the theory of the firm, developments that would later come together in thoroughgoing theories of international production (see below).
6. On the striking parallels between the 1870-1913 period and the last few decades, see Hatton and Williamson (1998). It is also worth noting that, like Luxemburg, Lenin, and Bukharin, later figures in this line of analysis (e.g., Baran & Sweezy 1966; Magdoff 1966; Murray 1972) did not address the question of direct investment independently of the question of underdevelopment. This represents a definite limitation on the applicability of such theories to the largest part of direct investment activity in the contemporary era.
7. The eclectic theory has achieved very wide currency. A UNCTC (1992) review of the determinants of direct investment, for instance, adopted Dunning’s scheme wholesale.
8. How do such advantages arise? Steven Hymer’s answer, in a work that arguably constituted the first thoroughgoing theory of direct investment, was that such advantages emerge due to market imperfections (Hymer 1960, 1976). Market imperfections generate a set of ownership-specific advantages and constitute barriers to entry by new competition. Imperfections in goods and factor markets, imperfections arising from economies of scale or from government intervention all enable the foreign firm to engage in direct investment. Through direct investment, the foreign firm is able to maintain its monopoly

on the advantages that such market imperfections have generated. Thus the firm that possesses, say, a certain patented technology might find it more profitable and less risky to produce directly in another country rather than service that market in other ways. For only by direct investment will that firm be able to maintain its control over its product and its monopoly over its advantages. As in this example, only by engaging in foreign production will the firm be able to capture the full rent of its patented technology.

9. Sociologists are familiar with this line of thinking owing to the influence of Oliver Williamson's (1975, 1981) work. What sorts of market imperfections prompt internalization? Particular attention has been given to imperfections in markets for certain perishable agricultural products, geographically concentrated raw materials, intermediate products in capital-intensive manufacturing processes, and for other intermediate products, especially human capital, knowledge, and marketing and managerial expertise. The market for "knowledge" in particular is viewed as highly imperfect and, thus, as generating strong pressures for internalization. Moreover, knowledge is viewed as having the quality of a public good within the firm, one that can be employed at low or zero marginal cost. Given the (growing) ease with which knowledge can be transmitted internationally, imperfections in knowledge markets readily lend themselves to internalization and are argued to have prompted the generation and growth of MNEs.

10. With the appropriate qualifications in mind, the analysis of aggregate direct investment data is not typically viewed as especially problematic in the specialized literature on international production. See the recent papers by Yang, Groenewold, and Tcha (2000), Cheng and Kwan (2000), and Clegg and Scott-Green (1999) for example.

11. In a companion piece to this article, I model the determinants of direct investment inflow into the same 18 OECD countries, focusing exclusively on "pull" factors.

12. As is well known, union links tend to be strong, nationally, within the same company, even when plants are spread over many sites. As is also well known, international harmonization of the demands of employees of MNEs is exceedingly rare. In the process described above, the firm, in essence, erases the spatial (and other) barriers that work to insulate labor from foreign competition and the political interventions that influence the functioning of national labor markets, inducing competition in the home labor market by effectively increasing supply, while preserving for its own benefit the imperfections of international markets.

13. For example, their detailed examination of the industrial relations practices of foreign and domestic firms in Britain, Buckley and Enderwick (1985) found that foreign-owned firms (1) had significantly lower union density than comparable domestic firms; (2) were more likely to bargain at the plant-level (rather than industry- or national-level) than domestic firms; (3) were reluctant to join existing employer's organizations (as this might have signaled tacit recognition of higher-level bargaining); (4) were markedly less likely to allow issues such as recruitment, staffing levels, and capital investment to enter into negotiations; (5) employed more centralized decision-making structures and offered fewer opportunities for employee participation than domestic firms; and, finally, (6) while they were no less likely than domestic firms to face work stoppages, the average duration of strikes was considerably shorter in foreign-owned firms. Buckley and Enderwick conclude that the heightened managerial control and "labor flexibility" that these practices induced were an important source of the large productivity advantage that foreign-owned firms

enjoyed over domestic firms. These findings are generally borne out in studies of the practices of MNEs in other OECD countries (see review in Enderwick 1985).

14. The picture I am painting is of course a general one that elides the important and systematic differences that did in fact exist between the industrial societies in this period. These are forgone here in the interests of brevity.

15. In empirically assessing the level of decommodification, one would assign a low decommodification score to a social welfare system which offered large benefits, but which offered them — either as a result of means-tests, work requirements, prior contribution requirements, or a number of other built-in constraints on entitlement to the transfer — to only a limited number of individuals. In contrast, one would assign a high decommodification score to a social welfare system that, while offering smaller benefits, granted the (universal) right to a transfer on the basis of citizenship.

16. As regards developing societies, Root and Ahmed (1979) and Lee (1986) found little support for an effect of unionization on direct investment.

17. This measure departs from Esping-Andersen's (1990) in two ways. First, the summary measure includes decommodification in maternity programs and excludes decommodification in old age insurance. This is done to focus the measure on the options open to the economically active population, female and male. Second, data limitations mean that each individual index (i.e., sickness, maternity, unemployment) was not weighted by the percent of the relevant population covered by the program in each year. Taking these differences into account, one finds that there is nonetheless a high degree of agreement between the summary index employed in this study and that presented by Esping-Andersen (1990:52) for 1980 ($r = .902$; $N = 16$).

18. The Swiss series is short because the Swiss did not report direct investment data prior to 1983.

19. Kiviet (1995) has questioned the small sample performance of GMM estimators. Monte Carlo simulations (Cermeno 1999) based on data sets with a structure roughly similar to that employed in this study (i.e., similar in the i and t dimensions) suggest that the Arellano-Bond (1991) one-step estimator may be downwardly biased. Given the large instrument matrix that results from treating x_{it} as predetermined, do the results differ if a smaller number of instruments are employed? When the number of lagged levels used as instruments for the predetermined variables is reduced from all available to two, the results for the full model (model 8) are identical to those reported in Table 2. The results are also substantively identical if x_{it} is treated as endogenous instead of predetermined.

20. In a similar vein, Thelen and Kume (1999) document the "surprising" resilience of traditional bargaining arrangements in Germany and Japan in the face of globalization. Practices in both countries have changed, but not exactly as the critical literature on globalization would have it.

21. The comparison of observed and predicted trends begins with the 1975-77 period because the first two periods in the analysis are lost to lags and first-differencing.

22. For the sake of convenience, I do not show the results for the other variables in the model.

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Ready-to-Wear Development? Foreign Investment, Technology Transfer, and Learning by Watching in the Apparel Trade*

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Abstract

The commodity-chain approach to economic development has inspired a growing literature on the apparel trade. While advocates of the approach hold that North American apparel firms are transferring skill and technology to Mexico and are thereby encouraging “export upgrading” south of the border, I illuminate a parallel process of skill and technology transfer in the Caribbean Basin and thereby (1) underscore the generality of the commodity-chain approach to supply-chain integration and (2) call the benefits of integration into question. I maintain that the returns to skill and technology transfer are inversely related to the extent of skill and technology transfer and explore the inherent tension between the generality of the commodity-chain approach and the accuracy of its predictions.

The growth of apparel exports from the developing countries to their developed counterparts has provoked two markedly different and seemingly incompatible reactions among academic and popular observers in North America and Western Europe. Mainstream analysts hold that “low-wage plants making clothing and shoes for foreign markets are an essential first step toward modern prosperity in developing countries” (Myerson 1997) and therefore welcome the globalization of the garment trade, but their critics decry the worldwide oversupply of low-cost, unskilled labor and therefore anticipate the “downward harmonization” of wages and working conditions in the developing world (Rosen 2002; see also Hale 2002; Ross & Chan 2002; Tonelson 2002).

** I would like to thank Jennifer Bair, Hannah Brückner, Enrique Dussel Peters, Lawrence King, Marcus Kurtz, Gay Seidman, Kenneth Shadlen, Ivan Szelenyi, and Robert Wade for comments on an earlier draft and the Institute of International Education for funding. Direct correspondence to Andrew Schrank, Department of Sociology, Yale University, P.O. Box 208265, New Haven, CT 06520. E-mail: andrew.schrank@yale.edu.*

Does the globalization of the garment trade presage a new era of peace and prosperity or an impending “race to the bottom”? A number of sociologists have attempted to reconcile the two opposing viewpoints by distinguishing the assembly of imported, precut fabric for — or in some cases, by — foreign manufacturers from the production of full packages of finished garments for foreign buyers (Bair & Gereffi 2001; Gereffi 1999, 2000; Kessler 1999). While traditional export assembly arrangements are characterized by low barriers to entry and therefore tend to generate low rates of return, full-package production is characterized by high barriers to entry and therefore tends to generate higher rates of return — and correspondingly improved living standards in traditionally impoverished parts of the world. “Compared with the mere assembly of imported inputs,” writes Gereffi, “full-package production fundamentally changes the relationship between buyer and supplier in a direction that gives far more autonomy and learning potential for industrial upgrading to the supplying firm,” and it thereby fosters “an enduring edge in export-oriented development” (Gereffi 2002:33).

Is the edge really enduring? Does full-package production provide a viable alternative to the downward harmonization of wages and working conditions? I hope to answer the question by reconsidering the rapidly growing sociological literature instigated, inspired, or informed by Gereffi’s work on the garment trade in North America (Applebaum & Christerson 1997; Bair & Gereffi 2001, 2003; Bonacich et al. 1994; Collins 2002; Gereffi, Spener & Bair 2002; Heron 2002; Knutsen 2003; Lee 2001). Gereffi and his associates hold that North American buyers and investors are upgrading Mexico’s human and physical resource base and therefore anticipate a “developmentally nutritious” (Helleiner 1990:889) transition from export assembly to full-package production south of the border (e.g., Gereffi 1997; Gereffi, Spener & Bair 2002; Kessler 1999), but they overlook a parallel process of skill and technology transfer in the Caribbean and Central America (Rabon 2000a) and therefore overestimate the returns to full-package production — and underestimate the very real threat of downward harmonization — in the Americas.

I hope to reconcile the undeniable diffusion skill and technology to Mexico with the potential for downward harmonization by placing the country’s recent apparel export boom in a broader regional context. On the one hand, I maintain that North American buyers are beginning to encourage full-package production in the Caribbean Basin, as well as in Mexico, and thereby underscore the generality of Gereffi’s account of technology transfer and “learning by watching” (Gereffi 1997:20). On the other hand, I note that the returns to full-package production are inversely related to the number of producers and production sites available and on that basis call into question not only Gereffi’s cautiously optimistic vision of Mexico’s future but the logical possibility of a *generalized* theory of *industrial upgrading*.

I have divided the article into four principal sections: First, I introduce Gereffi’s “commodity chain” approach to the apparel trade, review his Mexican findings,

and use industry sources to extend his analysis to the Caribbean Basin. The data suggest that full-package producers are available not only in Mexico but in the Caribbean and Central America as well. Second, I use qualitative and quantitative data collected in the Dominican Republic in 1998 and 2001 to examine the *correlates* of full-package production at the enterprise level. The data suggest that the full-package model has been pioneered by older, better capitalized, and foreign-owned firms regardless of labor, transport, and property cost considerations. Third, I explore the *returns* to full-package apparel production in the Dominican Republic, Mexico, and the remainder of Middle America in greater detail and suggest that they are in fact an inverse function of the number of full-package producers available. As full-package production networks spread to new sources of supply, the returns to full-package production decline, and the optimistic version of export upgrading via full-package production is therefore, in my opinion, exaggerated. And, fourth, I discuss the limits to industrial upgrading within the apparel industry, the prospects for lateral movement into different industries, and the implications for future research.

Ultimately, I maintain that a general theory of industrial upgrading is a contradiction in terms, for readily replicable development strategies are likely to undermine the oligopolistic underpinnings of developmentally nutritious sectors and are therefore likely to be devalued, or “downgraded,” by the very act of diffusion. The Middle American experience is illustrative, for it suggests that downward harmonization can result from the successful, as well as the unsuccessful, application of a ready-to-wear, export-led development model.

The Apparel Commodity Chain in the Americas

The global-commodity-chain approach to the study of trade, investment, and development is both a product and a foundation of Wallerstein’s world-systems theory. Wallerstein defines a global commodity chain as “a network of labor and production processes whose end result is a finished commodity” (Hopkins & Wallerstein 1986:159), treats the place-specific links, or “nodes,” of each chain as either corelike or peripheral, and thereby accounts for the uneven development of capitalism on a world scale (Hopkins & Wallerstein 1994). While corelike nodes are characterized by marked barriers to entry, above-average rates of profit, relatively high wages, and geographic concentration, their peripheral counterparts are characterized by low barriers to entry, average rates of profit, inferior wages, and geographic dispersion. Thus, the geographic core of the world system reaps the rewards of monopolistic (or at the very least oligopolistic) competition; the periphery bears the burden of overproduction and declining terms of trade; and the prospects for upward mobility are inauspicious at best (Wallerstein 1988).¹

Nevertheless, the migration of traditionally corelike activities to historically peripheral areas has provoked an implicit division within the Wallersteinian camp. While orthodox Wallersteinians attribute the emergence of the so-called new international division of labor to transnational capital's implacable quest for vulnerable, low-cost labor and therefore decry the geographic dispersion, or "peripheralization," of formerly core activities (Arrighi 1991; Fröbel, Heinrichs & Kreye 1980; Wallerstein 1988), their revisionist counterparts trace the process to the periphery's own efforts to capture a growing share of world output and for that reason welcome the prospect of "industrial upgrading" in newly industrializing countries (Bair & Gereffi 2002; Gereffi 1995b, 1999). In fact, Henderson has characterized the global-commodity-chain approach as a policy-relevant variant of world-systems theory (Henderson 1996; see also Morrissey & Filatotchev 2000), and Bair and Gereffi have portrayed "participation in global commodity chains" as an alternative — albeit presumably a second-best alternative — to "getting the institutions right" in the contemporary Third World (Bair & Gereffi 2001:1900).²

Who is correct? Are the newly industrializing countries upgrading their output? Or have traditionally corelike activities been peripheralized by powerful transnational corporations? The Latin American garment trade offers a doubly fortuitous opportunity to answer the question, for apparel represents the classic "buyer-driven" commodity chain (Applebaum & Gereffi 1994; Gereffi 1994), and Gereffi's analysis of the industry offers the most sophisticated and influential example of commodity-chain analysis undertaken to date.³ Gereffi's work has not only drawn the attention of the World Bank, the Inter-American Development Bank, and the United Nations Industrial Development Organization (e.g., Gereffi 2000, 2002; Gereffi & Martínez 1999; Gereffi & Memedovic 2003) but has also inspired collaborative research endeavors sponsored by the Social Science Research Council, the International Labor Organization, and the United Nations Economic Commission for Latin America and the Caribbean (Henderson 1996; see also Gibbon 2000). According to Schmitz and Knorringa (2000), Gereffi's commodity-chain approach offers observers of the new international division of labor a valuable point of departure, for it "identifies the key feature of the context in which export manufacturers from developing countries tend to operate: they feed into chains which are organized by lead firms that source globally" (201).

THE DYNAMICS OF THE APPAREL COMMODITY CHAIN

Gereffi divides the apparel chain into two distinct segments — apparel assembly and full-package production (also known as original equipment manufacturing) — and associates each with a different organizing agent, organizational structure, development outcome, and source region (see Table 1). His argument unfolds in five interrelated steps. First, the principal organizing agents are differentiated

TABLE 1: The Traditional Apparel Commodity Chain: Two Variants

Model	Assembly	Full-Package
Organizing agent	Branded manufacturers	Branded marketers and retailers
Structure	Easy entry and exit; competitive	Barriers to entry; concentrated
Development outcome	Transitory advantages	Industrial upgrading
Source region	Latin America and Caribbean	East Asia

Source: Based on Gereffi (1994, 1995a, 1995b, 1999, 2000, 2002).

from each other by their organizational assets. Branded manufacturers own manufacturing facilities in addition to their brand names (e.g., Levi Strauss, Hanes, Phillips-Van Heusen). Retailers own distributional outlets as well as their brand names (e.g., Wal-Mart, Target, the Gap) and private labels (e.g., JC Penney's "Arizona" line of blue jeans). And branded marketers own little more than their — admittedly profitable — brand names (e.g., Liz Claiborne, Nike, Reebok) and their in-house design and marketing capacities.

Second, the different asset structures mediate the relationship between the organizing agents and their preferred production strategies. While branded manufacturers are able to make their own inputs and therefore tend to prefer the export assembly model, retailers and branded marketers lack production capacity and therefore tend to prefer full-package networks. They are, in other words, "manufacturers without factories" (Gereffi 2002:4).

Third, the different production strategies are associated with different organizational structures. While the assembly model demands little more than the assembly of imported, precut fabric and is therefore characterized by low barriers to entry, aggressive worldwide competition, and a decidedly vulnerable profit stream, full-package production demands the mastery of fabric purchase, cutting, assembly, dyeing, and finishing, and is therefore characterized by high barriers to entry, circumscribed competition, and a more reliable and remunerative profit stream.⁴

Fourth, the different organizational structures are responsible for different long-term development outcomes. While apparel assembly tends to beget low-wage employment in isolated export-processing zones, full-package production tends to engender learning by watching, backward linkage, and industrial upgrading — and ultimately opens the door to original brand name manufacturing for developed country markets where, according to Gereffi, "the biggest profits are made in buyer-driven commodity chains" (Gereffi 1995b:86).

And fifth, and finally, the different development models tend to prevail in different parts of the world. While export assembly has traditionally been the norm in Latin America and the Caribbean, full-package production has been common in East Asia. In fact, Gereffi (1999) has portrayed the growth of full-package production capacity as the key to Asia's export success in the 1970s and 1980s.

Nevertheless, the demand for full-package production is, according to Gereffi, moving to the Western Hemisphere. And branded manufacturers are beginning to experiment with original equipment manufacturing. And branded merchandisers and retailers who have traditionally supplied their North American markets from the Pacific Rim are beginning to explore geographic solutions to both the growing gap in the supply of finished apparel exports from East Asia and the seemingly inexorable contraction of lead times between product design and marketing in the Americas (Gereffi 1999; 2002).⁵

WINNERS AND LOSERS

Who will fill the demand for regionally sourced packages? According to Gereffi, Mexico has a number of distinct advantages over the Caribbean and Central America, including a vibrant tradition of apparel manufacture, spatial contiguity with the U.S., and the North American Free Trade Agreement (NAFTA), and northern investors are therefore beginning to transfer the “missing pieces of the North American apparel supply chain to Mexico” (Gereffi 2000:70; see also Gereffi 1999). What are the missing pieces in question? Kessler (1999) cites direct foreign investment “in Mexican production facilities; bi-national joint ventures/partnerships; sister plant programs; and other creative alliances that are generally geared to eventual full-package operations in Mexico” (589). But Mexico’s victory in the struggle for the North American market is hardly a foregone conclusion, for the Caribbean and Central American beneficiaries of the Caribbean Basin Initiative (CBI) have responded to NAFTA by “developing full package capabilities and higher quality production facilities” of their own (Speer 2000; see also Jacobs 1998). They have therefore retained a number of distinct advantages over their Mexican counterparts, including low-cost labor, high-quality output, and shorter lead times.

The Caribbean Basin’s advantages are expected to grow under the recently approved U.S.-Caribbean Basin Trade Partnership Act (CBTPA) of 2000 (or “NAFTA parity” legislation) and an impending free-trade agreement between the U.S., Central America, and the Dominican Republic, and North American manufacturers are therefore beginning to expand their CBI sourcing options (see Abend 2000; Kurt Salmon Associates 2000; Rabon 2000a, 2000b; Rodríguez-Archilla 2000; Saccomano 2003; Speer 2000, 2001; USTR 2003). For example, Guess, the Los Angeles-based sportswear firm, has threatened to move production from Mexico to the Dominican Republic. VF Corporation, the maker of Lee and Wrangler blue jeans, has already done so. And Tropical Sportswear, a major North American producer of both branded and private labels, is reportedly abandoning Mexico for Haiti and Honduras (Latin American Weekly Report 2003; Ross 2002).

In fact, the transition underway in the Caribbean Basin bears a striking resemblance — and therefore constitutes a genuine threat — to the transition

underway in Mexico. According to Rabon (2000a), editor-in-chief of a major apparel industry trade magazine, “the major apparel producing nations of the CBI, including Honduras, the Dominican Republic, Guatemala, and El Salvador, are now actively competing to woo new investors to their respective countries. And from the other side of the fence,” according to one of her sources, “private label retailers and apparel firms, U.S. and Asian apparel sourcing companies, and textile mills providing full package services are scrambling to align with full package production sources in the Caribbean and Central America” (24).⁶

The current economic slowdown adds a degree of uncertainty to the equation, but the consequences of full-package production in the Caribbean Basin are already apparent to industry observers. For example, Stephen Lamar, vice president of the American Apparel and Footwear Association, notes that the Caribbean’s traditional “cut parts model appears to be shifting in favor of more full package approaches where U.S. yarns or fabrics, instead of cut parts, are shipped to the region for further processing into garments. In December 2000, cut parts trade (807, 807A, and cut parts preferences under CBTPA) accounted for about 97% of all preference imports from the region. In March 2001, this number had dropped to 88%” (see Lamar 2001:2; see also *Jernigan’s Textile Weekly* 2002; Kurt Salmon Associates 2000; Rodríguez & Freund 2002).⁷

According to the U.S. trade representative, the Dominican Republic is “poised to be a leading beneficiary of the CBTPA’s new apparel trade preferences” (USTR 2001:12), and the island nation therefore offers a useful test of the feasibility of industrial upgrading and the returns to full-package production. Are foreign “lead firms” encouraging upgrading in the Dominican Republic as well as in Mexico? While I attribute the Dominican apparel export boom to the activities of foreign investors, which underscores Gereffi’s model of diffusion, I call the returns to full-package production — and the prospects for apparel-based industrialization in Mexico as well as the Caribbean Basin — into question by underscoring the threat of overcapacity of full-package production sites in the world market.

Apparel Exporters in the Dominican Republic: From Assembly to Full-Package Production

Mexico and the Caribbean Basin compete for market share in the U.S., and the CBI region therefore offers an alternative perspective on the apparel commodity chain. Mexico has apparently “stolen growth” (Jacobs 1998) from the Caribbean Basin in recent years, but it has engendered neither the massive trade diversion nor the reduction in overall output anticipated by NAFTA’s critics — and the principal Caribbean apparel exporters have therefore experienced expansion rather than contraction since the mid-1990s (DesMarteau & Halsey 2001; Kurt Salmon Associates 2000).

TABLE 2: The Evolution of the Dominican Republic Apparel Industry

	1995	2000
Number of apparel-exporting enterprises	295	275
Number of workers in apparel export sector	109,000	142,000
Value of apparel exports to the U.S. (constant U.S. dollars)	\$1.733 billion	\$2.151 billion
Rank among U.S. suppliers (by value)	5	4

Source: 1995 data on firms and workers from Vicens, Martínez, and Mortimore (1998:52, 57); 2000 data on firms and workers from CNZF (2001:24,33); apparel import data from the American Apparel Manufacturers Association (<http://www.americanapparel.org/>); import data transformed into constant 1995 dollars using the Bureau of Labor Statistics (BLS) Inflation Calculator.

The Dominican Republic’s experience is more or less typical of the broader regional pattern. The country began to lure foreign apparel manufacturers into legally and physically circumscribed export-processing zones in the early 1970s, and by the mid-1980s it had been characterized as one of fourteen “emerging textile-exporting countries” by the U.S. International Trade Commission (USITC 1985). The pace of expansion accelerated in the late 1980s, and by 1995 the island nation’s 33 export-processing zones featured 295 apparel exporters — including a rapidly growing population of native-born exporters — and constituted the U.S. market’s fifth leading source of supply (see Table 2). While the apparel export sector has experienced a net firm loss of more than 5% since the implementation of NAFTA, it has experienced a net export gain of approximately 25% and a net employment gain of approximately 30%. Consequently, the Dominican Republic exports more apparel, employs more apparel workers, and generates lower returns — by almost \$800 — per apparel worker than it did in 1995.

The data in Table 2 suggest that the Dominican Republic has answered NAFTA’s challenge, but they offer little or no insight into the nature of the answer. Are the country’s apparel manufacturers upgrading their organizational and technological assets, downgrading their wage and profit levels, or both? Gereffi and his coauthors maintain that Mexico’s traditional apparel manufacturers have joined forces with foreign lead firms to enter full-package production networks (Bair & Gereffi 2001; Gereffi & Martínez 2000; Gereffi, Martínez & Bair 2002). I therefore undertook interviews with apparel buyers and manufacturers in 1998 and 2001 to explore the interactions among three principal variables in the Dominican Republic: the social origins of the investment; the nature of the buyer; and the reaction to NAFTA. I hoped to learn, first, *whether* Dominican manufacturers are entering full-package production networks; second, *which* Dominican manufacturers are entering full-package production networks; third, *how* Dominican manufacturers are

entering full-package production networks; and ultimately, *what* the consequences are of full-package production for the firm and the nation.

THE ORIGINS OF THE INVESTMENT

Who are the Dominican Republic's apparel manufacturers? I have identified five different (but not necessarily mutually exclusive) types of investors: transnational corporations, foreign entrepreneurs, spin-off entrepreneurs, traditional manufacturers, and return migrants.

Transnational corporations are wholly owned subsidiaries of foreign garment manufacturers. They manufacture clothing under their own brand names or under contract for overseas retailers or merchandisers. Examples would include well-known North American firms like Hanes and Levi Strauss.

Foreign entrepreneurs are contractors who have been priced out of traditional garment manufacturing centers (e.g., New York, Miami, Puerto Rico, and Korea) and have therefore come to the Dominican Republic in search of lower costs. They are frequently members of traditional middleman minority groups or ethnic enclave economies (see Portes 1995), are well connected to international credit markets and buyers, and almost invariably manufacture clothing under contract for larger overseas buyers. Examples would include DRUSCO, a U.S.-based partnership owned by a Bostonian of Jewish descent and a Cuban émigré, and Quality Apparel, a family-owned Puerto Rican firm.

Spin-off entrepreneurs are locally born managers and engineers who have worked for (or in a number of cases with) transnational corporations, foreign contractors, or local exporters and have subsequently opened their own contracting operations in the export-processing zones. They tend to receive assistance from their former employers or associates (who, in a number of cases, have become their current clients) and are therefore well connected to international buyers. Examples would include Grupo M and Caribbean Paradise.

Traditional manufacturers are former import-competing manufacturers who have turned from the local market to the world market. They are frequently, albeit not invariably, ignorant of world markets and tend to have difficulty finding and retaining capital, partners, and foreign clients. Examples would include Bratex and José Blanco.⁸

Return migrants are Dominicans who have gained skills or experience overseas (e.g., in the New York City garment trades; see Waldinger 1986) and have subsequently entered the apparel industry at home. The return migrant category is small and heterogeneous and tends to overlap with the categories of spin-off and traditional manufacturers. Examples would include Manufactura Cuatro Estaciones and Three Cs Sportswear.

THE NATURE OF THE BUYER

Who are the Dominican Republic's principal apparel buyers? Are they traditional manufacturers who are looking for nothing more than apparel assembly? Or are they branded marketers and retailers who hope to find full-package production arrangements?

The Dominican Republic's principal apparel buyers include the different types of lead firms identified by Gereffi in Mexico — that is, manufacturers, retailers, and branded marketers — as well as brokers who coordinate traditional assembly activities. The manufacturers include Hanes, Oxford Industries, Tropical Sportswear International, Levi Strauss, and VF Corporation. The retailers include the Gap, Old Navy, Banana Republic, Abercrombie & Fitch, the Limited, Sears, Wal-Mart, JC Penney, and K-Mart. And the branded marketers include Timberland, Liz Claiborne, Donna Karan, Nike, Reebok, Tommy Hilfiger, Eddie Bauer, Izod, Chaps, and Polo Ralph Lauren.

Furthermore, the "traditional boundaries" between the three types of buyers are, as Gereffi (1999) has argued, beginning to blur (Gereffi 1999). The manufacturers, marketers, and retailers who began to develop arm's-length relationships with local sewing contractors in the late 1980s are beginning to demand full packages today. And the demand for traditional garment assembly work, often coordinated by North American brokers, is beginning to evaporate.⁹

THE REACTION TO NAFTA

Have the Dominican Republic's contractors answered the Mexican challenge by adjusting their organizations and strategies, investing in new plant and equipment, and moving into full-package production? Or by cutting wages and working conditions or moving offshore? Do the divergent responses vary systematically by type of firm?

The interview data suggest that reactions to NAFTA are in no small measure a function of enterprise origins. While foreign contractors and spin-off entrepreneurs are well connected to overseas buyers and banks, and therefore tend to possess the skills, security, and capital required for long-term planning and expansion into full-package networks, traditional manufacturers (and to a lesser extent return migrants) have been relatively insulated from world markets, and therefore tend to lack the necessary experience, assets, and information.

Consequently, the post-NAFTA period has been dominated by the bifurcation of the country's apparel sector along the lines implied by Gereffi. The Dominican Republic's more dynamic manufacturers have parlayed their prior connections and achievements into strategic alliances and joint ventures, physical and organizational upgrading, and full-package production capacity — and have thereby grown at the expense of their less fortunate neighbors.

Nevertheless, the Dominican Republic's more dynamic manufacturers are foreign contractors and spin-off entrepreneurs *in statu nascendi* rather than the traditional, import-competing manufacturers identified by Gereffi in Mexico (see Vicens, Martínez & Mortimore 1998 as well as Schrank n.d.). While the foreign contractors bring knowledge of full-package production from their homelands, their local counterparts learn how to manufacture packages from their buyers, associates, and joint venture partners (see Schmitz & Knorringa 2000). Thus, Grupo M — established by Fernando Capellán, a former manager for a North American firm, in the mid-1980s — designs and produces fabric, thread, and garments; is involved in five joint ventures with transnational corporations; and employs well over 10,000 workers (see Dahle 2000; Hemlock 2002; Martínez Fornos 2000b). Grupo M is almost certainly exceptional, but it differs in degree rather than kind from a number of other integrated, cosmopolitan manufacturers including Grupo Interamericana, the D'Clase Corporation, and Empresas TyM (see, e.g., Bacigalupo 2001; Hemlock 2002; Martínez Fornos 2000a; Rudie 2001).

In fact, the Dominican Republic's full-package production capacity has grown precipitously in recent years. While an investigation undertaken on behalf of the United Nations Economic Commission on Latin America located no more than a handful of integrated manufacturers in the mid-1990s (Vicens, Martínez & Mortimore 1998), the National Free Zone Council (Consejo Nacional de Zonas Francas de Exportación, or CNZF) currently characterizes 125 — or approximately 45% — of the country's 282 export-oriented apparel manufacturers as full-package producers — and the Dominican Republic's full-package capacity is expected to grow in the years to come (CNZF 2001; see also Bacigalupo 2001; Rudie 2001).¹⁰

Who are the Dominican Republic's full-package manufacturers? While complete data on social origins are unavailable, Table 3 cross-tabulates enterprise-level data on market segments (i.e., assembly or full-package) by enterprise-level data on ownership characteristics (i.e., foreign or local) and suggests that the foreign-owned enterprises are leading the charge for full-package production.

The disproportionately rapid growth of full-package capacity among foreign firms would appear to underscore the credibility of Gereffi's model of technology transfer by foreign lead firms and the diffusion of full-package networks, but it would appear to gainsay the accuracy of his prognosis, for it suggests that the obstacles — and perhaps the returns — to full-package production are decidedly less imposing than anticipated.¹¹

What are the obstacles to — and prerequisites of — full-package production at the enterprise level? The industry trade publications I have examined, the sociological literature, and my own interviews in the Dominican Republic point toward two distinct but by no means mutually exclusive answers: first, a lack of capital; and second, a lack of knowledge. I will examine each possibility in the following subsection.

TABLE 3: Market Segment by Ownership in the Dominican Republic's Apparel Export Sector

Ownership	Market Characteristics		
	Assembly	Full Package	Total
Local	74	46	120
Foreign	83	79	162
Total	157	125	282

Source: Unpublished data provided by the CNZE. The data on national origin were collected in October 2000; the data on market characteristics were collected in 2001. I assume that any censored firms were assembly operations for two reasons: first, full-package suppliers are expected to be more robust than assembly operations; and second, the outcome of interest is not merely full-package production but successful full-package production, and any full-package producers who ceased operations in the months between the collection of the ownership data and the collection of the outcome data were by definition unsuccessful. N.B.: The differences are significant at $p < .10$.

Data, Methods, and Results

DATA SOURCES

Gereffi and his associates suggest that foreign investors contribute to export upgrading in the developing world. While the relationship between foreign direct investment and economic development is controversial in sociology, it is all but taken for granted in economics — where the relevant question is not whether but why foreign direct investment contributes to growth and well-being (see Crowley et al. 1998 for a review). Do foreign lead firms help their host countries overcome “object gaps,” including shortfalls of physical and financial capital, or “idea gaps,” including shortages of industrial skill and manufacturing knowledge? While the two perspectives are not necessarily incompatible, Romer (1993a, 1993b) suggests that mainstream economists have been overly concerned with the easy-to-measure object gaps and insufficiently concerned with difficult-to-measure idea gaps.

Gereffi would in all likelihood agree, for his model of full-package diffusion assumes that local firms learn to upgrade their assets and abilities from their foreign associates — and thereby overcome an idea gap. But the obstacles to full-package manufacturing include object gaps as well (e.g., the capital needed to inaugurate textile production or purchasing operations, to purchase cutting implements, to open finishing centers), and the causal link between foreign direct investment and upgrading therefore remains unclear. Do foreign investors help their local associates and partners overcome idea gaps, object gaps, or both?

The answer may be available in the Dominican Republic, for the National Free Zone Council has provided data on the services provided (i.e., full packages or assembly), investment levels, and ownership characteristics of the firms in the country's export-processing zones in October 2000 (see Table 3), and I am therefore able to examine three correlates of entry into full-package networks at the enterprise level:

Capital

The investment data allow me to explore the object-gap hypothesis by asking whether better capitalized enterprises are, *ceteris paribus*, more likely to enter full-package networks. The data measure the firm's gross investment level in millions of U.S. dollars in October 2000; the range of variation is from less than \$1 million to more than \$40 million.

Ownership

The ownership data allow me to place the differences between foreign and local firms in multivariate context. The lead-firms hypothesis would predict that, *ceteris paribus*, foreign firms are more likely to undertake full-package production than their local counterparts. The measure is an indicator variable that takes on the value of 1 if the National Free Zone Council classified the firm as foreign-owned (i.e., non-Dominican) in October 2000.

Learning by Watching

The learning-by-watching (or idea-gap) hypothesis would predict that, *ceteris paribus*, older, more experienced firms would be more likely to enter full-package networks than younger ones. I have constructed a firm-level age variable using data provided by the CNZF in 1998. The indicator variable takes on the value of 1 if the firm existed in late 1997, for Yung Whee Rhee's firm-level survey of the Dominican Republic's export-processing zones suggests that average annual rates of productivity growth taper off sharply — and that the liability of newness is therefore overcome — after three years of production (Rhee, Katterbach & White 1990).

MULTIVARIATE ANALYSIS

I use logistic regression analysis to evaluate the correlates of full-package production at the firm level; however, I use data collected at the level of the individual export-processing zone to incorporate four additional control variables: the average weekly wage for manual labor in pesos, the average weekly wage for technical labor in pesos, the annual rental cost of factory space in U.S.

TABLE 4: Logistic Regression — Full-Package Capacity = F (Organizational and Cost Variables)

	Odds Ratio(p value)			
	Model 1	Model 2	Model 3	Model 4
Investment (US\$ millions)	1.06 (.04)†	1.06 (.04)†	1.04 (.64)	1.05 (.62)
Investment ² (US\$ millions)			1.00 (.80)	1.00 (.84)
Ownership (1 = foreign)	1.57 (.07)†	1.93 (.05)†	1.57 (.07)†	1.94 (.05)†
Age (1 if ≥3 years old)	1.90 (.06)†	2.09 (.03)†	1.92 (.05)†	2.11 (.03)†
Manual labor cost (pesos/week)		1.00 (.63)		1.00 (.62)
Technical labor cost (pesos/week)		1.00 (.82)		1.00 (.82)
Rent (dollars per square foot)		1.11 (.43)		1.11 (.41)
Distance to nearest port (kms)		1.01 (.23)		1.01 (.22)
Model χ^2 (df)	9.97 (3)†	10.71 (7)	21.05 (4)†	25.4 (8)†
N	282	266	282	266

Source: Unpublished CNZF data; see note to Table 3 and text for details. The models are estimated by maximum likelihood with robust standard errors clustered on the free zone.

† $p < .10$

dollars per square foot, and the distance to the nearest port in kilometers. While the control variables measure the prevailing labor, rental, and transport costs faced by producers in the Dominican Republic's 33 apparel-exporting export-processing zones, and therefore account for any cost-induced variation in the propensity to undertake full-package production, they generate two potential analytical problems. First, they raise the possibility that error terms will be correlated at the level of the zone, and I therefore use robust standard errors clustered at the zone level to correct for the possibility of error correlation in each of the following models.¹² And, second, they force me to drop data on 16 apparel exporters who are located outside the zones, and I therefore begin with a reduced model using all 282 observations and no control variables (model 1).

Model 1 offers a regression of full-package production (1 = full-package producers as classified by the CNZF) on a vector of firm-level independent variables. The odds ratios for the relevant predictor variables are placed next to their corresponding p values in Table 4 and suggest three principal conclusions: first, that the odds of successful entry into full-package production networks grow by approximately 6% per million dollars of capitalization over a rather extensive range of variation (i.e., from less than \$1 million to more than \$40 million); second, that foreign firms are approximately 60% more likely to undertake full-package production than their local counterparts; and, third, that older firms are almost twice as likely to undertake full-package production as their callow counterparts net of other factors.¹³ The latter finding is particularly important, for it suggests that full-package production is undertaken by preexisting sewing

contractors rather than new market entrants and thereby heightens the credibility of the learning-by-watching hypothesis.

Model 2 includes the relevant control variables and suggests that the relationships detected in model 1 are robust. The investment coefficient is stable and significant at $p < .05$, and the ownership and age variables grow considerably more potent after controlling for factor cost variation at the level of the zone. While the dropped observations necessarily counsel caution (i.e., from the nonrandom nature of the remaining sample), the control variables are neither statistically nor — with the possible exception of rental cost — substantively significant, and the move to full-package production would therefore appear to be circumscribed by organizational characteristics rather than motivated by cost considerations.

In other words, the probability of transition from export assembly to original equipment manufacturing is a function of the size, the age, and the national origin of the firm, for larger, older, and more cosmopolitan enterprises are more likely to provide full packages than their smaller, younger, and less worldly counterparts regardless of labor, transportation, or property costs. While the level of capitalization would appear to play a particularly important role in differentiating full-package producers from mere sewing contractors, the relationship between the propensity to offer full packages and the level of capitalization is not necessarily linear, and I therefore test for diminishing returns to capitalization by adding a polynomial term — investment squared — to models 3 and 4. What are the results? While the odds ratios imply a degree of nonlinearity, they are strongly influenced by a few highly influential, well capitalized cases, and neither the Box-Tidwell test recommended by Hosmer and Lemeshow (1989) nor a likelihood ratio test of overall model fit (not shown) would counsel rejecting the assumption of underlying linearity.

What are the implications of the commodity-chain approach for industrial upgrading? While the growth of full-package production capacity in the Caribbean Basin would appear to corroborate Gereffi's model of technology transfer and learning by watching, it would appear to cast doubt upon his more optimistic predictions, for the returns to full-package production derive from barriers to entry, and the diffusion of the full-package model is therefore likely to depress — rather than augment — the profitability of original equipment manufacturing in Mexico as well as the Caribbean Basin (see Kaplinsky 1998, 2001).

In fact, the CBI member nations need not outperform Mexico to constitute a threat. The mere existence of a Caribbean option will in all likelihood exert downward pressure on apparel wages and prices throughout the hemisphere (Abend 2000; Antoshak 2000; Mazur 2001; Speer 2001). And lurking in the background is China — a low-cost rival to both Mexico and the Caribbean Basin (see Forero 2003; Greider 2001; Kaplinsky 2001; Larmer 2002; Moreno 2002; Thompson 2001). Therefore, I explore the consequence of full-package production in Mexico, the

Caribbean Basin, and the remainder of the developing world in the following section.

Upgrading or Downgrading? The Dominican Republic in Comparative Perspective

The Dominican Republic's transition from export assembly to full-package production has been a mixed blessing. While the manufacturers in my sample hoped that full-package production would constitute an upgrading strategy, they increasingly view it as a survival strategy (Hemlock 2002; Peña Brito 2003). On the one hand, they hold that overall rates of profit under the full-package model are not significantly higher than overall rates of profit under more traditional assembly arrangements, since full-package production demands large upfront costs and entails significant long-term risks, including not only falling prices and the loss of contracts but the possibility of unwarranted charge-backs during periods of slack demand.¹⁴ In fact, Arturo Peguero, vice president of Grupo M, holds that apparel prices keep falling and notes that if they continue to do so, the profitability, and hence the viability, of the industry could be placed at risk (Peña Brito 2003). On the other hand, they maintain that their ability to undertake potentially profitable original brand name manufacturing has been circumscribed by scarcity of capital, ignorance of design and marketing, and fear of retaliation by North American apparel buyers.¹⁵

In other words, the profits accruing to the Dominican Republic's garment manufacturers are contingent upon participation in the apparel commodity chain, but participation is predicated upon the acceptance of conditions imposed by northern buyers (Raikes, Jensen & Ponte 2000). While buyers encourage and take advantage of competition in the relatively low-return preassembly, assembly, and finishing sectors, they are intolerant of competition in the highly profitable design, marketing, and distribution sectors, and relegation to low-return manufacturing activity may therefore constitute the inherent price of participation in the apparel commodity chain (see Schmitz & Knorringa 2000 for similar findings in the footwear industry).

Is the Dominican Republic's experience unusual? I hope to answer the question by examining data on the unit values of apparel exports from Middle America in the NAFTA era. While unit values provide an imperfect measure of upgrading or upgrading-like activity, they are widely used by economists and marketing experts as a proxy for value-added or product quality (Hoen & van Leeuwen 1991; Lee 2001; Rodrik 1988). And Gereffi and Korzeniewicz (1990) not only portray an increase in the unit value of an export as the "best" available *reflection* of upgrading but treat an increase in unit value as part of the *very definition* of upgrading in their pioneering study of commodity chains and footwear exports in the semiperiphery (1990). Therefore, I present in Table 5

TABLE 5: Unit Prices of Imports of Middle American Apparel, 1995–2002

	1995	1996	1997	1998	1999	2000	2001	2002	Percent Change
Costa Rica	2.55	2.57	2.64	2.50	2.17	2.07	1.87	1.69	–34
Dominican Republic	2.74	2.60	2.64	2.63	2.49	2.57	2.57	2.51	–08
El Salvador	2.44	2.44	2.31	2.26	2.02	1.95	1.92	1.83	–25
Guatemala	3.69	3.81	3.86	3.80	3.70	3.66	3.55	3.39	–08
Honduras	2.79	2.24	2.17	2.19	2.09	2.00	1.98	1.90	–32
Mexico	3.32	3.15	3.09	3.06	2.99	2.95	2.93	2.91	–12

Data: American Apparel Manufacturers Association (<http://www.americanapparel.org/>); values converted to constant 1995 values using the inflation calculator provided by the U.S. Bureau of Labor Statistics (<http://www.bls.gov/cpi/home.htm>).

the average unit value (i.e., the price per “square meter equivalent” in constant 1995 dollars) of apparel imported to the U.S. from Mexico and the principal Caribbean Basin exporters for the period following the implementation of the North American Free Trade Agreement.

The evidence is hardly consistent with a process of export upgrading; on the contrary, it suggests that Gereffi’s hypothesis fails his own recommended test. After all, Mexico’s unit values are not only lower than Guatemala’s unit values overall but are also falling rather precipitously. While falling apparel prices are theoretically compatible with upgrading or upgrading-like activity (i.e., if productivity is rising more rapidly than unit values are falling), they are more likely to imply downgrading, for apparel *manufacturers* — as opposed to buyers, vendors, and retailers — rely upon nineteenth-century technology, and their admittedly limited productivity gains have almost invariably been animated by wage compression rather than technical innovation (Applebaum & Christerson 1997; see also Chiu & Levin 1995).¹⁶ In fact, Tonelson (2002:B1) has recently used nearly a decade’s worth of hard data collected by Werner International, a North American consulting firm, to underscore not only declining real wages in Mexico’s needle trades but an “almost uniform wage meltdown in the apparel industry in the Third World.”¹⁷

Unfortunately, the data on average unit prices and wages fail to disaggregate producers by their status — that is, assembly versus full-package — and may therefore obscure substantial subnational variation. Thus, I conclude by considering the prospects for upgrading in the two most likely cases: first, the area around Torreón in northern Mexico and, second, the Dominican Republic’s Cibao Valley.

TORREÓN, MEXICO

Gereffi and his associates maintain that upgrading is underway in Torreón, for local manufacturers are assuming responsibility for a growing array of tasks previously performed overseas — including textile and fabric production, the provision of trims and labels, cutting, laundering, and distribution — and are therefore receiving higher prices for their output (see Bair & Gereffi 2001; see also Gereffi & Martínez 2000; Gereffi, Martínez & Bair 2002). But the price increases cited by Gereffi and his associates are not necessarily synonymous with upgrading, for they take into account neither the overall rate of inflation nor the growing costs and risks of production under the full-package model. After all, the prices paid to full-package producers must cover material inputs as well as labor costs — and industry sources continue to describe textile and apparel producers as price takers rather than price makers (see Kurt Salmon Associates 1999).¹⁸

Furthermore, and perhaps more ominously, the area around Torreón is no longer cost-competitive on a world scale, and apparel manufacturers are therefore beginning to decamp for lower-cost locations overseas. According to John Christman of the CIEMEX-WEFA consulting group, the average cost of factory labor in northern Mexico is nearly two times as high as the average cost of factory labor in the Dominican Republic and El Salvador, three times as high as the average cost of factory labor in Indonesia, and five times as high as the average cost of factory labor in China (see Thompson 2001). Consequently, mass layoffs have become the order of the day (see Ferriss 2001; Gori 2002; Inteletex 2003; Lindquist 2002; Mandel-Campbell 2001; Thompson 2001).¹⁹

Nor does the pattern of contraction support the upgrading hypothesis. While Bair and Gereffi (2001) correctly anticipated layoffs and plant closures by “small subcontractors located at the bottom tiers of the chain,” they failed to anticipate — and, in fact, implicitly challenged the likelihood of — a growing spate of layoffs, shutdowns, and deferred investments at multinational textile and apparel manufacturers such as Burlington Mills, Sara Lee, Dan River, and Cone Mills (see Ramey 2002; Romney 2001; Silver 2002). But the textile industry tends to follow the apparel industry. And the apparel industry is all but inexorably drawn to “the cheap needle” (Langlois 2001). As a vice president of manufacturing at VF Jeanswear noted at the outset of Mexico’s export boom, “It’s kind of like a race. One country may give you more value than another, but a year or two down the road it might be different” (see Ramey 1997).²⁰

Mexico offers the perfect example, for the onetime “darling of U.S. apparel importers” is currently suffering from “the largest drop of any major foreign apparel supplier” (Ramey 2002), and the Fox administration is therefore beginning to encourage the literal as well as the figurative peripheralization of the country’s garment industry. “In southern Mexico,” according to Fox, “we are establishing the same conditions as Guatemala or China. Maquiladoras do not have to leave Mexico.

We can offer them the same level of competitiveness” (Thompson 2001:C1; see also Gori 2002).

While Gereffi and his colleagues are aware of the Mexican government’s southern strategy, they hold that “the overall prospects for Torreón remain bright” (Gereffi, Martínez & Bair 2002:221), for they doubt that “Torreón’s experience is replicable in other Mexican locales that do not share some of the city’s strategic advantages, including close proximity and easy transport to the U.S. border, the existence of an apparel-manufacturing tradition prior to NAFTA, and a class of local entrepreneurs able to upgrade their factory operations” (Spener, Gereffi & Bair 2002:17). Are they correct? While the social and institutional underpinnings of Torreón’s success are hardly universal and are not to be taken lightly, they are not unique to Torreón, for the Dominican Republic’s remote, inland, and traditionally agricultural Cibao Valley plays host to a growing cluster of full-package producers, and their very existence calls the singularity — and the sustainability — of Torreón into question.

THE DOMINICAN REPUBLIC’S CIBAO VALLEY

Gereffi and his colleagues hold that no Caribbean Basin firms “are capable of moving beyond maquiladora-style subcontracting and into full-package production” (Spener, Gereffi & Bair 2002:19), but the data I have adduced are consistent with the observations of industry sources — who hold that “with the passage of the Caribbean Basin Tariff Preference Act (CBTPA), Caribbean firms are finding it easier to make full-package clothing than was the case prior to CBTPA” (*Jernigan’s Textile Weekly* 2002:6) — and industry sources suggest that almost half the Dominican Republic’s exporters are indeed full-package producers. The majority of the Dominican Republic’s full-package producers are found not in the traditionally import-competing coastal capital of Santo Domingo but in export-processing zones in the traditionally agro-commercial city of Santiago and the surrounding Cibao Valley — home to more than half the full-package producers identified in Table 3 (see Schrank n.d.). Fernando Capellán is by far the most successful of the Dominican Republic’s full-package producers, and his Grupo M therefore offers a “best case” scenario for the future of the Cibao Valley’s export trade.

Grupo M manufactures full and partial packages for a distinguished list of clients, including Liz Claiborne, Levi Strauss, Polo Ralph Lauren, Eddie Bauer, Tommy Hilfiger, the Gap, Banana Republic, Timberland, and Abercrombie & Fitch. According to Martínez Fornos (2000b), the vertically integrated holding company is “the largest private employer in the Dominican Republic — with 13,000 direct jobs — and possibly the largest textile and apparel employer of the Caribbean and Central America.” While Capellán founded Grupo M in the Santiago export-processing zone in 1986, he established his own export-processing zone in 1997, and it is currently the crown jewel of his empire. The so-called Caribbean

TABLE 6: Employment and Wages at Caribbean Industrial Park, 1997–2002

Year	Manual Labor				Skilled Labor		
	Operating Units	(Workers)	Nominal Wage (Pesos)	Real Wage Index (Pesos)	(Workers)	Nominal Wage (Pesos)	Real Wage Index (Pesos)
1997	5	824	446	4.78	87	900	9.65
1998	10	4,166	647.57	6.44	460	1,503.38	14.95
1999	12	3,023	786.80	7.45	786	1,401.80	13.27
2000	15	4,201	819.27	7.11	1,550	1,952.05	16.95
2001	14	3,688	860.15	7.15	749	1,761.50	14.65
2002	13	4,414	819.88	6.17	1,124	1,901.70	14.31

Data: CNZF, various years. The real wage index was constructed by dividing the nominal wage by the consumer price index made available by the Central Bank of the Dominican Republic at <http://www.bancentral.gov.do/ipc.html>.

Industrial Park employs more than one-third of Grupo M’s labor force; features textile and knit fabric manufacturing as well as preassembly, assembly, and finishing services; and is all but entirely dedicated to full-package production. Therefore, it offers a unique opportunity to explore the impact of the full-package model in the developing world.

What are the consequences of full-package production at the Caribbean Industrial Park? Fortunately, the National Free Zone Council’s annual reports include data on the number of operating units, the size and skill level of the labor force, and the rate of compensation at Caribbean Industrial Park since it opened. The park was not fully operational until 1999, however, and the data for 1997 and to an admittedly lesser extent 1998 therefore (1) cover a small and decidedly atypical share of Caribbean Industrial Park’s current labor force and (2) are included in Table 6 simply for the sake of completeness.

The truly revealing data cover the years 1998–2002. What do they reveal? Capellán has been widely characterized as a model employer (see Dahle 2000). His workers are offered free literacy and English lessons, subsidized medical and child care, and the possibility of upward mobility within the organization. But they have not experienced the corresponding wage growth and job security anticipated by advocates of full-package production. While the data in Table 6 betray nominal wage growth for both manual and skilled workers, they suggest that real wages have (1) fluctuated wildly since the late 1990s and (2) dropped along with demand for Dominican apparel since 2000.

Furthermore, and perhaps more important, the level of investment (i.e., the number of operating units) and employment at Caribbean Industrial Park tends to fluctuate markedly from year to year. While a secular decline in employment levels would at least in theory be consistent with a process of

mechanization and productivity increase, the more volatile investment and employment levels at Caribbean Industrial Park would appear to reflect Grupo M's effort to find a time-honored geographical counterweight to rapid fluctuations in U.S. demand. Where are Caribbean Industrial Park's jobs going? While northern Mexico's apparel firms are considering the low-wage south, the Dominican Republic's manufacturers are considering Haiti — and Capellán is at the front of the line. Grupo M has recently broken ground on a new free trade zone on the western side of the border, and Capellán therefore plans, first, to employ up to 8,000 Haitian workers at approximately \$28 per week in the unskilled needle trades (Arthur 2002; Breton 2002; El Caribe 2002; Gonzalez 2002; Hemlock 2002) and, second, "to court high-tech and electronics companies that will bring their production facilities to his industrial park" in Santiago (Dahle 2000).²¹ His vision represents a lateral movement into the information technology or electronics commodity chain rather than an upward movement within the apparel commodity chain, however, and it will therefore prove costly, risky, and in all likelihood impossible without the support of a "developmental state" (Amsden 1994; Evans 1998; White & Wade 1988).

MIDDLE AMERICA IN THE EAST ASIAN MIRROR

An internationally competitive apparel industry has frequently been portrayed as the first step on the road to industrial transformation (see, e.g., Clifford 2000; Myerson 1997). But the latter need not grow naturally from the former, for the apparel industry is neither particularly skill-intensive nor directly linked to more dynamic, capital-intensive sectors like steel, consumer electronics, or petrochemicals.²² In fact, Amsden (1994) holds that the diversified business groups responsible for the East Asian economic miracle rarely came out of the textile and apparel sector. "Despite the fact that cotton textiles were Korea's leading sector in the 1960s," for example, "none of the top 10 *chaebol* that consolidated their power originated as cotton textile producers" (577). If the cotton textile industry served a propulsive role at all, she argues, it was "institutionally" rather than "organizationally."

In other words, East Asia's most important *firms* neither came from nor learned how to compete in the cotton textile and apparel industries. But East Asia's most capable *states* learned how to cultivate internationally competitive firms in textiles and apparel and later applied the lessons they had learned to the more capital-intensive industries, which propelled the second, and far more challenging, stage of the region's industrial takeoff in steel, automobiles, shipbuilding, petrochemicals, and consumer electronics.

What, then, are the implications for Mexico and the Caribbean Basin? A number of Middle American governments have made — or at the very least not impeded — a surprisingly auspicious start in textiles and apparel. But they are nearing the end of the easy phase of export-led industrialization and they must

therefore begin to cultivate new industries in more dynamic sectors if they are to avoid the “export-led trap” of declining profit margins, lower wages, and long-term investment shortfalls identified by Cumings (1984) two decades ago. The entrepreneurs who propelled and reaped the rewards of the easy phase of export-led industrial growth are intuitively aware of the problem and are therefore, at least in some cases, begging their governments to act before it is too late — if it is not already too late. They would therefore offer their respective governments useful, if contingent, allies in what Evans (1998) has labeled “joint project[s] of economic transformation” (198), and their cause is not helped by a theory that views integration into global commodity chains as an alternative, rather than a complement, to getting the institutions right in the contemporary developing world.

Conclusion

A number of contemporary sociologists have identified full-package production as a source of industrial upgrading in the apparel commodity chain. My reconsideration of the upgrading argument is entirely consistent with the observations of industry sources and is rooted in three related data sources and findings. First, the qualitative and quantitative firm-level data I have examined suggest that the transnational buyers and investors who have incorporated Mexican apparel makers into full-package production networks are currently bringing the full-package model to the Caribbean Basin. Thus, transnational corporations do transfer skill and technology to their partners overseas. Second, the U.S. import data I have examined suggest that the growth of full-package production in the Western Hemisphere has been accompanied by declining apparel unit values in the U.S. Thus, the full-package approach to apparel manufacture does not necessarily generate higher returns or profit margins. And, third, the comparative case study data I have examined suggest that full-package apparel suppliers in Mexico and the Caribbean Basin are eroding their own profit margins — and their people’s living standards — by undertaking a cutthroat competition for market share in North America. Thus, the upgrading efforts of hundreds of individual apparel manufacturers may ultimately be downgrading the industry as a whole.

What are the broader lessons of my inquiry into the Middle American apparel trade? I will conclude by reviewing three principal contributions and avenues for future research: first, the generalization of Gereffi’s model of skill and technology transfer by lead firms from North America; second, the identification of their local partners; and third, a reconsideration of the prospects for industrial upgrading in buyer-driven commodity chains.

While the Dominican Republic is smaller, poorer, and more remote than Mexico, the qualitative and quantitative data I have adduced imply that North American buyers and investors have offered at least some of their Caribbean

and Central American associates “the skills and resources needed to move into the more diversified activities associated with full-package production,” which underscores the generality of Gereffi’s model of technology transfer and learning by watching (e.g., Gereffi 2000). The results should not prove surprising, for the lead firms I have identified in the Dominican Republic are in many cases identical to the lead firms identified by Gereffi in Mexico, and they are helping the Dominican Republic, Mexico, and the broader Caribbean Basin overcome object and — perhaps more important — idea gaps on the way to full-package production.

Nevertheless, buyers and investors who join forces with traditionally import-competing manufacturers in Mexico collaborate with a parvenu element in the Dominican Republic. The emergence of a new class of apparel exporters in the Dominican Republic is doubly interesting and worthy of additional inquiry. On the one hand, it speaks to a sociologically fascinating but infrequently studied aspect of the Third World’s neoliberal revolution: social mobility (see Birdsall & Graham 1999). On the other hand, it implies that full-package production need not rely upon a preexisting tradition of apparel manufacture, and that the potential population of full-package producing nations and regions is therefore decidedly larger than Gereffi would have anticipated.

Is the growing population of full-package production sites good news or bad news? The answer is anything but clear. Bair and Gereffi (2001), who are relatively optimistic, write, “Given that the governments of industrializing countries have limited power to ‘get the institutions right,’ the question becomes how firms can use their participation in global commodity chains to pursue developmental goals” (1900). But firms are not dedicated to the pursuit of developmental goals; they are dedicated to the pursuit of profit, and in the course of pursuing profit in a growing number of countries they may well be devaluing the very technical and organizational assets upon which the returns to full-package production have traditionally been based. Thus, Mexico, the Dominican Republic, and their neighbors and rivals are parties to a collective action problem on a grand scale: short-term rationality, that is, the promotion of full-package production, helps contribute to long-term disaster, that is, the devaluation of full-package production and the downward harmonization of wages and working conditions in the developing world.

While failure to pursue upgrading would lead to exclusion from the apparel trade and is therefore not a viable option, a more realistic development — as opposed to survival — strategy would encourage lateral movement into sparsely populated chains rather than upward movement in densely populated chains. After all, the returns to a given economic activity are a function of the number of suppliers available as well as their positions in the relevant chains, and the “choice” of chain is therefore no less important than the “choice” of position in the chain. By way of illustration, Taiwan’s consumer electronics

manufacturers (Ernst 2000; Ernst, Ganiatsos & Mytelka 1998), Ireland's software developers (Ó Riain 2000), and Costa Rica's semiconductor producers (Larraín, López-Calva & Rodríguez-Clare 2000) earn above-average returns not because they are *at the top* of their respective commodity chains — they are not — but because they are *in* their respective commodity chains. Electronics, software, and semiconductor producers are harder to find — and therefore better compensated — than textile and apparel manufacturers. But Taiwan, Ireland, and Costa Rica got into electronics, software, and semiconductors at the behest of public- rather than private-sector officials, and their achievements therefore underscore the importance of industrial policy as well as — rather than instead of — the importance of lead firms.

Notes

1. See Henderson (1996) and Raikes, Jensen, and Ponte (2000) for reviews of the literature on global commodity chains.

2. The split between orthodox and revisionist Wallersteinians is readily apparent in Wilma Dunaway and Donald Clelland's review of Gereffi and Miguel Korzeniewicz's *Commodity Chains and Global Capitalism* (Dunaway & Clelland 1995) and the response by Korzeniewicz, Gereffi, and Korzeniewicz (1996). Henderson's claim stands in particularly sharp relief against the backdrop of orthodox world-systems theory's deep-seated hostility toward the very notion of "national" development (e.g., Arrighi 1991; Wallerstein 1988).

3. Gereffi (1994) defines buyer-driven commodity chains as "industries in which large retailers, brand-name merchandisers, and trading companies play the pivotal role in setting up decentralized production networks in a variety of exporting countries, typically located in the Third World" (97).

4. The term *full-package production* is actually a misnomer, for the full-package "producer" is, *sensu stricto*, nothing more than an agent who coordinates the production of a finished apparel product. He need neither produce nor acquire the relevant inputs (e.g., textiles, fabrics, dyes) or outputs (e.g., finished garments) in-house or in his homeland — and full-package production need not, therefore, imply backward linkage in the classical sense of the term (Hirschman 1977). Unfortunately, the distinction between full-package production and backward linkage is not always clear in Gereffi's work. For example, he and his coauthors hold that the North American Free Trade Agreement "has allowed Mexico to develop full-package production capabilities, where not only assembly but all other required manufacturing activities, including the production and purchase of raw materials, are performed within the country" (Gereffi, Martínez & Bair 2002:211), and thereby imply that full-package production (i.e., the coordination of the entire production process) *necessarily* entails linkage (i.e., movement into the textile sector). It does not. A Mexican contractor who purchases fabric in China and uses it to make finished garments for sale on the U.S. market under a North American brand name is, by definition, a full-package producer. Bair and Gereffi acknowledge the distinction between full-package production and linkage in their most recent article (2003).

5. The alleged supply gap has a number of sources, including the tightening of Asian labor markets, the post-Plaza revaluation of Asian exchange rates, and the growth of the intra-Asian textile and apparel trade, but it has one overwhelming implication: a need for a nearby source of full-package production. The very existence of the gap is unclear, however, for China's apparel exports have been growing at double-digit rates for several years and show little sign of slowing down.
6. Furthermore, the multifiber agreement (MFA), which currently regulates tariffs and trade in textiles and textile-related products, is expected to expire in 2005. Free trade in textiles and apparel will increase the Caribbean Basin's advantages vis-à-vis Mexico if not necessarily East Asia.
7. Items 807 and 807A of the U.S. tariff schedule offer apparel made from U.S.-manufactured components preferential access to the U.S. market.
8. See Schrank (n.d.) for a more detailed inquiry into the differences between traditional manufacturers and spin-off entrepreneurs.
9. The line between manufacturer and marketer is particularly blurry and increasingly fluid. For example, Oxford Industries describes itself as a "manufacturer and wholesale marketer of branded and private label apparel" (including Tommy Hilfiger, Nautica, Slates, and Izod Club) as well as a supplier to private label customers "in every major channel of distribution including national chains, specialty catalogs, mass merchandisers, department stores, specialty stores and Internet retailers" (see the Oxford Industries Web site at www.oxfordinc.com). And Tropical Sportswear International makes and markets clothing under brand names that include Bill Blass, Geoffrey Beene, and Van Heusen as well as private label items for JC Penny, Lord & Taylor, and other retail establishments (see Tropical's Web site at www.tropicalsportswear.com).
10. The National Free Zone Council is the government agency in charge of regulating the Dominican Republic's export-processing zones and distributing the country's apparel quota, and it therefore has access to proprietary firm-level data on ownership, employment, investment levels, and capacities. My quantitative data analysis is based entirely on the council's proprietary data.
11. Mathews (2002) ignores the growth of full-package capacity in the Dominican Republic and the Caribbean Basin more generally.
12. While hierarchical linear models are the standard solution to the problem of error correlation in multilevel models, they require larger within-cluster samples than I have at my disposal. Angeles, Guilkey, and Mroz (2002) recommend the use of robust standard errors at the highest level of aggregation (in my case, the export-processing zone) where hierarchical models are impractical.
13. The odds ratio is defined as the probability an event (e.g., entry into full-package networks) occurs over the probability that it does not occur. According to DeMaris (1993:1063), the odds ratio reveals "the multiplicative impact on the odds for a unit increase in a given predictor, net of all other covariates in the model."
14. A charge-back is a deduction or charge extracted from the supplier by the purchaser for an alleged infraction, e.g., flawed manufacturing, incorrect packaging, late or sloppy

delivery. According to my respondents, buyers tend to use charge-backs to recoup their losses during periods of slack demand, the manufacturer is vulnerable to the whims of the buyer, dispute resolution is all but impossible, and the potential for chicanery grows in proportion to the number of tasks a manufacturer performs. Thus, the move into full-package production is risky, especially during an economic downturn. See Hays (2001) for a similar analysis.

15. A number of respondents suggested that North American buyers would respond to their efforts to penetrate the U.S. market by canceling their contracts, and that original brand name manufacturing would therefore induce bankruptcy in the short term regardless of any hypothetical long-term benefits. Others simply described apparel marketing as “a different business” and suggested that the skills they had learned as producers would not readily translate into design and marketing.

16. According to Roy Pepper and Har Bhattacharya (1994), the principal exception to the industry’s technological backwardness lies in the preassembly phase: “the introduction of computer-aided designing (CAD) and computer-aided manufacturing (CAM) can reduce the number of workers and the need for worker training. Nevertheless, the whole preassembly stage accounts for only 5 to 7 percent of the total costs of apparel manufacture, so even if the introduction of a CAD/CAM system saves 50% of the preassembly costs, the effect on total costs is not significant” (47–48; see also Meyanathan & Ahmed 1994). Of course, the unit value data do not discount the possibility of backward linkage, i.e., that the growing use of locally sourced inputs could increase the overall returns to Mexican producers despite falling unit values on the export side. But the linkage claim suffers from at least four limitations. First, linkage is not intrinsic to full-package production, for full-package suppliers need neither produce nor purchase their inputs at home (see note 4 above). Second, the degree of linkage is itself in question, for U.S. textile exports to Mexico have been growing faster than U.S. apparel imports from Mexico. Third, the quantity of linkage is in all likelihood overestimated, for Mexico’s apparel exporters import a large quantity of contraband yarn, thread, and fabric from China (Business Alert U.S. 2001; Peters 2001). And, fourth, the degree of linkage is likely to decline in the future, for half of Mexico’s textile mills — including a number of the country’s largest and most modern mills — have recently been shuttered (see Flores 2002; Ramey 2002).

17. Nor would the recent recovery in U.S. demand for imported apparel gainsay my argument, for the growth of North American demand has been met by low-cost rather than high-productivity suppliers. In fact, the rank correlation between the average wage in the apparel sector in 1998 — the most recent year for which data were available — and the percentage growth in export volume during the period of the recent recovery (i.e., from October 2002 until October 2003) is $-.9$ ($p < .005$) across the six countries listed in Table 5. While the Dominican, Salvadoran, Guatemalan, and Honduran apparel sectors have recovered over the course of the past year, Costa Rica and Mexico, with the highest average wage rates in the region, have continued to lose export volumes. Data are from USITA Office of Textiles and Apparel and Mortimore (2002); full results are available from the author upon request.

18. Gereffi cites the growth of denim production around Torreón as an example of upgrading (see Bair & Gereffi 2001), but the post-NAFTA tripling of Mexican denim

output has contributed to worldwide overproduction and has thereby depressed wholesale denim prices by more than 25% (Burritt 2000). The consequences are apparent at a number of newly shuttered mills.

19. A recent *New York Times* article suggests that Mexico's current crisis is not merely a consequence of the U.S. recession: "Permanent, not just fleeting, changes are being wrought because low-skilled workers on Mexico's northern border are no longer as cheap as in other parts of Latin America and some places in East Asia" (Thompson 2001:C2). Bear in mind, however, that unskilled workers in northern Mexico are cheap by U.S. standards. The Mexican government holds that the average cost of unskilled factory labor in Torreón is approximately US\$.54 per hour including fringe benefits (see Mexican Bank for Foreign Trade 2000). Bacon (2001, 2002) cites a similar figure provided by a local nongovernmental organization. Both estimates are significantly lower than earlier estimates offered by Gereffi (e.g., Gereffi & Martínez 1999).

20. Nevertheless, Gereffi is cited in a *Women's Wear Daily* article attributing shutdowns at Burlington Industries and Guilford Mills to "strategic miscues" rather than "overall problems with U.S. textile interests in Mexico" (see Ramey 2002).

21. According to Dahle (2000:252), Capellán believes that the apparel industry "is going to fade away faster than most people think it will" and that the Dominican Republic therefore has "to be ready to diversify" (00). Capellán's minority partner and adjutant, Arturo Peguero, whom I first interviewed in 2001, concurs and therefore aggressively advocates the promotion of more skill-intensive industries. See Peguero interviewed by Peña Brito (2003) and quoted in *El Caribe* (2003).

22. The apparel industry links principally to the textile industry, which is itself not particularly developmentally nutritious. For example, Rosenberg (1982) holds that the synthetic fibers used by the modern textile industry constitute an example of forward linkage from the chemical industry rather than backward linkages from the apparel industry.

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Postindustrialization and Environmental Quality: An Empirical Analysis of the Environmental State*

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Abstract

Existing sociological analyses express differing expectations about state control over economic actors and the political feasibility of environmental regulation. Recent literature on the environmental state sees environmental protection as becoming a basic responsibility of postindustrial states, with economic actors no longer having the autonomy they once enjoyed. In contrast, much of the work in environmental sociology expects commitments to environmental state responsibilities to be largely symbolic. Scholars working from this perspective tend to see environmental damage as proportionate to economic prosperity. To assess the differing expectations, we analyze actual environmental performance among the most prosperous nation-states focusing on national-level emissions of carbon dioxide. The strongest predictors of emissions are found to be measures of ecological efficiency, which tend to be associated with potentially less symbolic policy decisions. For the future, there is a need to move beyond broad assertions, devoting greater attention to the conditions under which states are more or less likely to impose constraints on economic actors.

The social consequences of modernity have been of interest to sociologists at least since the days of Weber ([1904-5]1958), Tonnies ([1887] 1963), Durkheim ([1893]1933), and Marx (1889), but the nature of the interest has changed significantly in recent decades. Two types of transformations are particularly noteworthy; both of them result, in part, from the magnitude of the social, economic, and technological changes that have taken place over the past century. First, sociologists now focus routinely on the social structure of “advanced”

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capitalist states, often using terms such as *postindustrialization* (e.g., Bell 1973), advanced capitalism (e.g., Habermas 1970, 1975, 1998), or new modernity (e.g., Beck 1987, 1995, 1997, 1999; Beck et al. 1994). Second, in a related change, there is now growing attention to how such advanced capitalist states will affect their own biophysical infrastructures. This attention to the relationship between societies and the natural environment is particularly relevant as environmental problems continue to worsen around the globe.

When Weber closed his *Protestant Ethic* by noting that the “iron cage” of capitalistic systems might well last “until the last ton of fossilized coal is burnt” (Weber [1904-5] 1958:181), his comment was generally taken to mean that the metaphorical cage would continue for an almost indefinitely long time. So dramatic have been the changes in the societal use of natural resources, however, that present-day scientists from a variety of disciplines now predict such ending dates in far more specific ways. Although present-day industrial societies are significantly more dependent on oil than coal, world oil reserves are now seen as sufficient to supply present global petroleum needs for only another forty years (e.g., World Resources Institute 1994). This calculation points to the severity of global environmental conditions and the importance of the policies that address these issues. Both within the specialized field of environmental sociology and across the discipline as a whole, sociologists have devoted increasing attention to the fact that, in the words of Habermas (1975:42), “The exponential growth of population and production . . . must some day run up against the limits of the biological capacity of the environment” (see also Grant et al. 2002).

Different groups of sociologists, however, have assessed the biophysical constraints of advanced modernity in sharply different ways. On the one hand, a good deal of work within political sociology, which is largely European in origin, calls for the emergence of an *environmental state* (Mol & Buttel 2002; see also Buttel 2000a; Frank et al. 2000a, 2000b; Goldman 2001). As we will spell out in greater detail in the pages that follow, this work actually includes three main branches — reflexive modernization, ecological modernization, and postmaterialism — which are largely independent from one another, but which tend to share two commonalities. First, much of the work in all three branches reflects the view that, in the words of Anthony Giddens, environmental protection is becoming “a source of economic growth rather than its opposite” (Giddens 1998:19). Second, all three branches tend to include an expectation that advanced or industrialized nation-states will treat environmental protection “as a basic state responsibility” (Frank et al. 2000b: 96), with the state at least implicitly being seen as having enough autonomy or capacity to carry out that responsibility.

In terms of these two expectations — that environmental protection can be carried out in ways that will be economically beneficial, and that those responsibilities will be embraced relatively readily by the state — however, the

work in this relatively new environmental state tradition stands in sharp contrast to the main body of work in the field that has come to be known as *environmental sociology* over the past several decades. First, most work in the environmental sociology literature has tended to see environmental regulations as being harmful — and often as being strongly antithetical — to continued economic growth. Important authors within environmental sociology, for example, have warned of a need to stop the expansion of capitalism and/or the processes of industrialization because of the risk of “overshooting” of global carrying capacity (e.g., Catton 1980), of the potential collapse of economic activity that may result from the self-exhausting tendencies of a “treadmill of production” (e.g., Schnaiberg 1980), or of the “second contradiction of capitalism” (e.g., Foster 1992; O’Connor 1991). Similarly, a more recent article concludes that “environmental threats to sustainability are . . . principally due to population growth and economic growth” (York, Rosa & Dietz 2003:296). Second, due in part to these economic expectations, work in environmental sociology tends to presume that state actors will avoid, rather than embrace, most tangible expansions of environmental responsibilities. In contrast to the work on the environmental state, in other words, the main body of work in environmental sociology is more consistent with the expectations put forth by scholars such as Edelman (1964), O’Connor (1973), and Block (1987), who see the legitimacy of the state as being dependent, to a significant degree, on the maintenance of “business confidence” and economic growth. Thus, scholars working within the environmental sociology tradition tend to find state constraints on business/economic autonomy as relatively problematic and highly unlikely (e.g., Alario & Freudenburg 2003; Dunlap & Mertig 1992; Schnaiberg 1980).

Although there are important exceptions — specifically including major figures in the ecological modernization literature who have made it clear that their work grows out of environmental sociology, such as Mol, Spaargaren, and especially Buttel — most authors working on either side of the environmental sociology/environmental state “divide,” at least to date, have devoted relatively little attention to those working on the other side. Instead, as noted by recent assessments from Cohen (2000) and Fisher and Freudenburg (2001), there has been a marked tendency within each body of work to offer strong, relatively undifferentiated expressions of a given point of view. These views are sometimes accompanied by empirical examples, but there have been relatively few efforts to learn whether a more systematic empirical examination might lead to finer-grained conclusions. In the words of Fisher and Freudenburg (2001:704), the expectations and debates, to date, “have tended to be expressed in stark, black-and-white terms,” while “the reality is likely to be more complex — a matter of degree, rather than of absolutes.” Put differently, the greatest need may be not merely for more empirical work, but more specifically, for rigorous efforts

to identify *the conditions under which* empirical outcomes will tend to resemble the expectations from one body of work or the other (e.g., York, Rosa & Dietz 2003).

As may already be clear, the present article seeks to respond to this challenge, not by prolonging the separation between these two bodies of literature, but instead, by examining the empirical implications of both in a more even-handed manner.

Examining the Empirical Implications

As a useful simplification, the differing degrees of optimism between the environmental sociology and the environmental state literatures can be traced to hypotheses in the latter works, holding that advanced societies will move toward the successful management of environmental problems. Many authors of the environmental state conclude that economic prosperity of a nation-state may increasingly come to be associated with *lower* levels of environmental input and emissions (e.g., Mol 1995; for analyses and supportive evidence, see Templett & Farber 1994; Repetto 1995; Freudenburg 1992; for opposing views, see Bunker 1996; Daly 1990; York et al. 2003). As already noted, however, these expectations are actually expressed in three main bodies of work, not just one. Although there is significant comparability in the overall outcomes expected by reflexive modernization, ecological modernization, and postmaterialism, the specific mechanisms that are hypothesized to lead toward those outcomes tend to be very different. Still, in comparison with the work in environmental sociology, all three of these literatures on the environmental state are far more likely to view environmental protection as involving low or acceptable costs, economically, and high levels of implementation, politically.

With respect to questions of *economic costs*, it is possible that the major reason for the higher level of optimism within the environmental state literature involves the expectation for improvements in technological and, therefore, ecological efficiency. Perhaps the most explicit statement of this expectation is provided by the theorists working within the framework of ecological modernization. The best-known proponents of ecological modernization in the English-language literature, for example, expect "unproblematic use of science and technology in controlling environmental problems" (Mol & Spaargaren 1993:454; see also Buttel 2000b, 2000c; Christoff 1996; Cohen 2000; Fisher & Freudenburg 2001; Hajer 1995; Huber 1985; Leroy & van Tatenhove 2000; Mol 1995, 1997, 1999, 2000a, 2000b; Mol & Sonnenfeld 2000; Mol & Spaargaren 2000; Spaargaren 1997, 2000; Spaargaren & Mol 1992; Spaargaren & van Vliet 2000). Scholars working on postmaterialism, meanwhile, have a somewhat different perspective, seeing the economic costs of tougher environmental protection as being not so much negligible as

acceptable. In the words of Ronald Inglehart, one of the most well known proponents of postmaterialism, “*countries* that have relatively postmaterialistic publics, rank relatively high in their readiness to make financial sacrifices for the sake of environmental protection” (Inglehart 1995: 57, emphasis in original; see also Abramson 1997; Brechin & Kempton 1994, 1997; Dunlap & Mertig 1997; Inglehart 1990; Pierce 1997). Proponents of reflexive modernization tend to have a similar point of view, expecting civil society actors to see environmental damage as a greater concern than any associated constraints on production processes. In the words of Beck, “The goal is not a turning back but rather a *new modernity*, which would demand and achieve self-determination, and prevent its truncation in industrial society” (Beck 1995: 17, emphasis in original; see also Beck 1987, 1997; Beck et al. 1994).

This issue of economic feasibility also has clear relevance to the second main way in which proponents of the environmental state tend to differ from those who have worked within the traditions of environmental sociology, involving questions of *political implementation*. For this second area of difference, however, there is a certain degree of empirical support for the expectations of the environmental state literature, mainly in the realm of international institutions (see Frank et al. 2000a, 2000b; see also Haas 1989, 1990, 1995; Haas and Sundgren 1993; Levy et al. 1993; Young 1989, 1997), and within the context of an emergent world polity (e.g., Frank 1997, 1999; Meyer 1994; Meyer et al. 1997). At the same time, however, even these findings have come under criticism. Of particular relevance in the current context is the criticism put forth by Buttel (2000a). Specifically, Buttel points out that a focus on the establishment or diffusion of *institutional forms* of environmental protection may actually have little to say about the extent to which such measures or forms “have, or are likely to have, any definite connections with actual environmental protection *outcomes*” (Buttel 2000a: 118, emphasis added; for a comparable criticism, see York et al. 2003).

This distinction may well be important. At least since the time when Edelman (1964) discussed *The Symbolic Uses of Politics*, there has been a good deal of awareness within the social sciences of the potential for disjuncture between the *symbols* versus the *substance* of state activities. As subsequently pointed out by other authors such as Block (1987; see also Habermas 1970, 1975; O'Connor 1973), “advanced” or “late” capitalistic states can be expected to face the challenge of maintaining economic vitality, but to do so while at least *appearing* to carry out other responsibilities, ranging from the protection of worker rights to the protection of the environment. If it is, in fact, the case that vigorous efforts to provide environmental and other forms of protection will undermine “business confidence” in the state, then — as noted by analysts who have ranged from neoconservative economists (e.g., Freeman & Haveman 1972; Stigler 1975) to neo-Marxist critics of capitalism (e.g., Miliband 1969; see also Poulantzas 1973; Domhoff 1978) — it may well be reasonable to expect

state actors to favor actions that are high in symbolic value, but low in the material constraints that they place on economic actors.

Such a tendency to favor symbolic over tangible measures is often in evidence in cases specifically regarding environmental protection. Although measures of what we will be calling *environmental institutionalization* — such as the establishment of national parks and protected areas, or the willingness to support international environmental treaties — may provide valid indicators of environmental state outcomes, as Frank et al. (2000b) have argued, a good deal of recent empirical work casts doubt on just such conclusions. As a number of scholars point out, the growth or proliferation of bureaucracy may well show an increased commitment to *symbols* of regulation.

In a detailed analysis of agency permits for the filling of wetlands, for example, Krogman (1999) notes that, despite legal requirements that included an explicit prohibition of “significant adverse environmental impacts” and a stated policy position that there would be “no net loss” of wetlands, there were actually so many “exceptions” in her Louisiana study that not even one application out of a thousand was ever denied. An earlier example of the tendency toward symbolic action in a very different political-economic context is reported by Stearns (1979). Her study finds that, in response to wildcat strikes among miners in 1964, the Swedish government dramatically increased the size of the bureaucracy that was purportedly devoted to occupational health and safety. Even after the personnel increase, however, the number of agency inspections actually *decreased*. In yet another study, Freudenburg and Gramling (1994) analyze a federal U.S. agency that is required to do longitudinal studies of the environmental and social impacts of offshore oil drilling; they find that the agency “implemented” the law through a process involving what they call “bureaucratic slippage.” The agency used a series of individually gradual but collectively significant regulatory reinterpretations that, in effect, ultimately made it illegal for the agency to perform the very kinds of studies that the law required (see also Hawkins 1984, 1996; Heo 1997; Schnaiberg 1980; Stearns 1979; Yeager 1990).

The degree of environmental institutionalization, in other words, may provide a particularly inopportune measure for testing the difference between environmental state versus environmental sociology approaches. Instead, as emphasized by Buttel, there may be a need to join the small but growing number of recent works that focus on the overall *effects* of state measures to protect the environment, as indicated by material environmental protection *outcomes* (e.g., Grant et al. 2002; Roberts & Grimes 1997). The value of an outcome-focused approach may well extend beyond the potential for understanding the differences between the relatively recent theories of the environmental state and the earlier literature in environmental sociology. Instead, it may also offer opportunities for examining the dynamics of advanced or postmodern states more broadly (e.g., the collection edited by Spaargaren,

Mol & Buttel 2000; see also Laumann & Knoke 1987; McCright & Dunlap 2000). It is precisely such a form of testing, accordingly, to which we turn in the following section.

Measuring Material Outcomes

Of many potential measures of “actual environmental protection outcomes,” perhaps the one that has received the most attention in international circles in recent decades has involved national-level emissions of carbon dioxide, or CO₂. This compound is the largest single constituent of so-called “greenhouse gases” — the emissions that are now seen by the vast majority of atmospheric scientists as contributing to global warming by increasing the earth’s propensity to retain the sun’s heat (e.g., IPCC WGI 2001; US National Research Council 1992, 2001). As noted by Roberts and Grimes, “Carbon dioxide is now understood to account for over half of the effect of greenhouse warming” (1997: 192; see also Dietz & Rosa 1997).¹

Carbon dioxide emissions also have another noteworthy characteristic: as noted by Rosa and Dietz (1998:437) they offer nearly a “pure case of a collective good” (see also Soroos 1997, 1998). In other words, in the views of a vast majority of the relevant scientists, there is a clear need to reduce CO₂ emissions on a planet-wide basis. At the same time, however, CO₂-reduction measures can often be resisted quite intensely by key economic actors within the relevant nation-states. In the U.S., for example, the Senate voted 95-0 in 1997 for a resolution that related directly to the economic and political expectations that separate the environmental state and environmental sociology literatures. In the words of the Resolution, the Senate expressed a “strong belief that the [climate change] proposals under negotiation . . . could result in serious harm to the U.S. economy, including significant job loss, trade disadvantages, increased energy and consumer costs, or any combination thereof,” and thus that the “United States should not be a signatory to any protocol” (U.S. Senate 1997: Report Number 105-54; see also the text of recent debates on the Senate floor in the *Congressional Record*, U.S. Senate 2003:S10021).

DATA AND METHODS

Since there would be little reason to expect theories of “advanced” or “late” capitalistic development to apply to nations having only limited economic prosperity — and because just 30 developed countries emit over half of the world’s CO₂ (IEA 2001; see also Roberts & Grimes 1997; Roberts 2001) — this article’s examination of CO₂ emissions will focus on just those nations, which also happen to be the most prosperous or developed nations of the world.² For our analysis, we will focus on the 29 out of the 30 nations that belong to the

Organization for Economic Cooperation and Development (OECD) for which data are available.³

Given the importance of population factors in many analyses of environmental problems (for summaries, see Dietz & Rosa 1997; York, Rosa & Dietz 2003), and given also that these 29 OECD nations differ greatly in their populations, our dependent variable for "environmental protection outcomes" will be standardized by population numbers. In other words, we will focus on CO₂ emissions *per capita*, per year, as compiled by the International Energy Agency (IEA), an autonomous agency linked with the OECD that focuses on energy issues.⁴ The most recent CO₂ emissions inventory from the IEA provides data from 1998 (IEA 2001).

To address the two differing ways in which the recent environmental state theorists and the earlier environmental sociologists have dealt with the relationships between prosperity and environmental quality, we will bring in four sets of independent variables. The first set, which is the most straightforward, involves relatively standard economic indicators. Reflecting potentially important differences among (and even within) the three branches of work in the environmental state literature, the remaining three sets reflect differing indicators of environmental protection outcomes. In particular, they include: (1) four specific measures that we judge to provide the clearest of the available indicators of environmental performance of a nation-state; (2) the two best-known of the available indices that assess broader or overall environmental protection at the level of the nation-state; and (3) three measures of the extent of national environmental institutionalization, adapted from those used by Frank et al. (2000b). Table 1 presents a list of the specific variables used and their sources.

Economic Indicators

The first set of independent variables reflects the perspective of many present-day representatives of potentially regulated industries, as well as much of the literature in environmental sociology, namely that economic prosperity is associated with environmental degradation, and that emissions will thus generally be proportionate to the size of the economy. As will be recalled, these expectations are very different from the views put forth in the environmental state tradition, in much of which "environmental protection is seen as a source of economic growth rather than its opposite" (Giddens 1998:19). To test the competing expectations, we draw on two economic measures that are both considered "selected economic indicators" by the OECD (1999). The better-known measure involves each nation's Gross Domestic Product (GDP), per capita, as of 1998 (OECD 1999). Although this measure is well known and widely used, it has been criticized by a number of economists (e.g., Daly, Cobb

TABLE 1: Variables And Data Sources

Category	Variable	Data Source
Dependent Variable	CO ₂ emissions per capita (tonnes of CO ₂ per person 1998)	IEA 2001
Economic Measures	GDP per capita (1000 US\$ per person 1998)	OECD 1999
	Total primary energy supply per capita (MTOE per person 1998)	IEA 2001
Environmental Performance Measures	Percent change in total 1980-97 primary energy supply (MTOE)	OECD 1999
	Motor vehicle travel per capita (billion vehicle-km 1997)	OECD 1999
	Municipal waste (kg per person 1998)	OECD 1999
	Industrial waste (kg/US \$1000 GDP 1998)	OECD 1999
Overall Environmental Protection Measures	Ecological footprint (1997)	Wackernagel et al. 1997
	Sustainability index (2001)	Global Leaders of Tomorrow Environment Task Force 2001
Environmental Institutionalization Measures	National parks and protected areas (percentage of total land area)	World Conservation Monitoring Center 2001
	Country chapters of international environmental nongovernmental associations (annual number)	Union of International Associations 2000
	Nation-state contributions to intergovernmental environmental organizations (\$US contributed/GDP)	Stokke and Thomessen 2001

& Cobb 1989; see also Cobb, Halstead & Rowe 1995 for a popularly written assessment) as being an excessively “gross” measure, in that it merely adds up a nation’s economic transactions. A nation’s GDP goes up, for example, when workers receive wages for cutting down a forest — and it goes up even more if the resultant deforestation leads, in turn, to other expenditures (e.g., for rebuilding homes that are destroyed in downstream flooding, or even for burying flood victims or hiring lawyers to sue the logging company). If a forest is not cut down but instead merely continues to grow, on the other hand, then even though such a forest could help to mitigate global climate change by absorbing CO₂, such a social benefit will not be reflected in GDP figures unless direct monetary transactions take place.⁵

The less well-known economic indicator involves each nation’s total primary energy supply (TPES) per capita, which is measured in million tonnes of oil equivalent (MTOE), again standardized by population (IEA 2001). This indicator is the most straightforward of any of the available measures of the ways in which a nation contributes to CO₂ emissions through its energy consumption (for details on TPES calculations, see www.iea.org/statist/keyworld/keystats.htm). As recent analyses show (Hale 1997; Roberts & Grimes 1997; see also Farla & Blok 2000), there are strong correlations between energy consumption and GDP, but increases in the energy efficiency of most national economies have led to substantial *decoupling* of energy inputs and economic outcomes over the past three decades, particularly among the most prosperous nations of the globe. Similarly, total energy consumption can be decoupled from CO₂ emissions because available energy technologies are not equal to the amount of CO₂ they produce.

Specific Environmental Performance Indicators

Although the three main branches of the environmental state literature are generally compatible with one another in their expectations about the economic feasibility of environmental protection, they tend to be more varied in terms of what they expect for political feasibility and policy performance, in two main respects. First, there is some disagreement across the three branches of the environmental state literature about the extent to which environmental protection has already been accepted as “a basic state responsibility.” At one end of the continuum, scholars such as Frank, Hironaka & Schofer (2000b:100-2) see a top-down process of diffusion, starting with international institutions and ending with isomorphism or even “universalism,” particularly among those advanced nation-states having a larger number of “receptors,” such as scientific associations and national environmental organizations. At the opposite end of the continuum, scholars such as Inglehart (1995) or Spaargaren and Mol (1992) are more likely to expect significant cross-national differences in environmental protection. In the analyses below, the differing expectations

about environmental institutionalization will be readily addressed by examining the intercorrelations among the independent variables, specifically including variables identified by Frank et al. as indicating national-level “receptors” for top-down policy initiatives from international organizations.

Second, as noted in our earlier review of literature, Buttel (2000a) and others have called attention to a potentially vital distinction between the *proliferation of environmental institutions* versus *actual environmental protection performance*. Thus, our analysis needs to include well-accepted measures of environmental performance, and not just measures of environmental institutionalization: if there are, indeed, systematic variations in the tangible consequences of national policies for environmental protection — beyond any symbolic effects — then the results of environmental policies should lead to systematic variations in what Buttel (2000a) has called “actual environmental protection outcomes.” In other words, the nations that have shown the greatest tangible or effective willingness to curb CO₂ emissions may also be the ones that would have taken steps to assure positive environmental protection outcomes of other types.

As there are no standard indicators of such patterns of environmentally protective policy outcomes, our first four measures of environmental protection outcomes all reflect the extent to which a nation could be seen as having pursued environmentally protective policy choices. Given the focus on efficiency within the ecological modernization literature, it is worth noting that all four measures can also be seen as reflecting, to some degree, the ecological efficiency of the national economies in question.

Our first environmental performance measure has particular relevance for ecological efficiency; it involves the percentage *change* in energy consumption, as measured by the change in the total primary energy supply (TPES) from 1980 to 1997. The variable is coded so that positive numbers indicate increases in energy consumption and negative numbers indicate decreases. Inclusion of this variable in the analysis responds to the emphasis of authors such as Roberts and Grimes (1997) and Hale (1997) on differential improvements in energy efficiency that have taken place since the energy price shocks of the 1970s.

The second environmental performance variable involves kilometers of motor vehicle travel, per capita, in 1997 (OECD 1999). This variable is generally expected to have a reasonably strong correlation with CO₂ emissions, although it needs to be recognized that less than a quarter of the CO₂ emissions in OECD countries (22.7% in 1997) came from the transport sector (IEA 2001). Since over three-quarters of CO₂ emissions come from other sources, this variable is perhaps best understood as providing an indicator of the policy choices that have been made in developing transportation infrastructures. The driving of trucks and automobiles, in other words, represents more than just a reflection of choices made by individuals in the absence of physical or social structures. Instead, motor vehicle travel also reflects national policy choices, which include,

but are not limited to, a nation's decision to invest in superhighways rather than in rail systems, to levy lower or higher gasoline taxes, and to encourage sprawl or to build higher-density urban areas that have lower numbers (and distances) of automobile trips. Although the data do show a general correspondence to the expectation that the richest countries will have the highest levels of motor vehicle travel, there are also systematic variations that are not merely a function of differing levels of affluence across countries. Even though the richest country in the OECD, the U.S., has the highest level of motor vehicle travel per capita, for example, the second richest country, Japan, ranks number 20 out of the 29 states included in our analysis.

The third and fourth environmental performance measures are listed by the OECD as representing what it calls "selected environmental data" (OECD 1999). The third, which offers the most straightforward measure available of the extent to which *individual consumers* have become part of a so-called "throw-away culture," involves the number of kilograms of municipal waste discarded, per capita, in 1998. The fourth, by contrast, is better understood as a measure of the wastefulness (or conversely, the efficiency) of each nation's *industries*: kilograms of industrial waste, per US \$1000 GDP, also for 1998 (except in the cases of Canada and the U.S., where no data were available for 1998, and where we have used the most recent data available, from 1994 [OECD 1994]). This measure does have a potential weakness that needs to be noted with respect to the present article, in that it is standardized in terms of the dollar value of production output, not in terms of population. Still, given the importance of what we are calling "ecological efficiency" in the literature on ecological modernization (see also works in the popular literature such as Hawken 1993; Repetto 1995), a measure of industrial waste or efficiency per unit of production provides a better measure of a nation's industrial or production efficiency than would a measure that would be standardized per unit of population, particularly since industrial output may or may not be associated with a nation's population size.

Broader Environmental Protection Measures

Given the challenges involved in measuring overall environmental performance, we will also make use of the two best-known efforts by other researchers to produce composite measures of nations' overall environmental impacts and environmental quality. Both of these measures have a minor drawback, in that they omit data for an additional OECD country (Luxembourg), but in other regards, both measures have received a good deal of favorable attention. The first is the "Ecological Footprint of Nations" measure, which has been developed by Wackernagel et al. (1997; see also Wackernagel & Rees 1996) to quantify ecological impacts. The basic intent of the Footprint variable is to measure each nation's resource consumption and

waste accumulation, relative to its productive land area. This variable has been praised by York, Rose & Dietz (2003:280) as “the most comprehensive measure of environmental performance available” (see also Wilson 2000; Wright & Lund 2000), although other academics have criticized the measure for ignoring the role of trade (e.g., Ayres 2000). The second such measure is the environmental sustainability index, which was developed by scholars at the Yale University Center for Environmental Law Policy, the Earth Institute Center for International Earth Science Information Network (CIESIN) at Columbia University, and the Global Leaders of Tomorrow Environment Task Force of the World Economic Forum (Global Leaders of Tomorrow Environment Task Force 2001). The sustainability index was developed to represent “a country’s environmental success . . . in the management and improvement of common environmental problems”⁶ and to measure a nation’s “overall progress toward environmental sustainability.”⁷ In other words, this index was designed to reflect the capability of a nation to internalize environmental protection and develop in a sustainable manner (see Global Leaders for Tomorrow Environment Task Force 2000). Finland, for example, received the highest ranking in the sustainability index. In the words of a press briefing, it “ranks at the top because of its success in minimizing air and water pollution, its high institutional capacity to handle environmental problems, and its comparatively low levels of greenhouse gas emissions.”⁸ Various organizations and academics, however, have also criticized this index, with the New Economics Foundation, for example, calling it a measure of “global misleadership” (Çapella 2001). Rather than siding arbitrarily with past assessments that have argued either for or against these measures, we include both of the measures in our analyses as a way of testing the empirical utility of the available approaches.

Environmental Institutionalization Measures

To address Buttel’s questions about the associations between environmental bureaucratization and actual environmental outcomes (2000a), our third set of independent variables are adapted from three specific measures of levels of institutionalization that were identified by Frank, Horonaka & Schofer (2000a:96) as reflecting actions by nation-states to protect the environment.⁹ The first directly replicates the operationalization used by Frank and colleagues. It involves the number of national-level chapters of international environmental nongovernmental associations in each country (Union of International Associations 2000). The second variable, which reflects a country’s commitment to international environmental organizations, has been operationalized somewhat differently here than in the work by Frank and colleagues. Rather than simply using the raw financial contributions, we have standardized the contributions by the sizes of the economies in question, using the percentage of a country’s GDP in 1998 that was contributed to three of the largest funds for

TABLE 2: Product-Moment Bivariate Correlation Coefficients for OECD Countries

	CO ₂ Emissions per Capita	GDP per Capita 1998	Total Primary Energy Supply per Capita 1998	Percent Total Primary Energy Change 1980- 1997	Motor Vehicle Travel per capita 1997	Municipal Waste 1998	Industrial Waste 1998
CO ₂ emissions per capita	1.00						
GDP per capita 1998	.648 **	1.00					
Total primary energy supply per capita 1998	.677 **	.733 **	1.00				
Percent total primary energy change 1980-1997		-.260	-.306	-.185	1.00		
Motor vehicle travel per capita 1997	.723 **	.864 **	.716 **	-.382 *	1.00		
Municipal waste 1998	.484 **	.703 **	.501 **	-.207	.687 **	1.00	
Industrial waste 1998	.519 **	.012	.250	-.209	.076	-.123	1.00
Ecological footprint	.518 **	.684 **	.764 **	-.209	.758 **	.481 **	-.015
Sustainability index	.297	.658 **	.562 **	-.398 *	.624 **	.477 *	.023
National parks and protected areas	.281	.344	.152	-.289	.358	.267	.032
Country chapters of international environmental nongovernmental associations	.300	.380 *	.224	-.234	.473 **	.456 *	.002
Nation-state contributions to intergovernmental environmental organizations	.214	.673 **	.331	-.316	.412 *	.298	-.068

TABLE 2: Product-Moment Bivariate Correlation Coefficients for OECD Countries (Cont'd)

	Ecological Footprint	Sustainability Index	National Parks and Protected Areas	Country Chapters of International Environmental Nongovernmental Associations	Nation-State Contributions to Intergovernmental Environmental Organizations
CO ₂ Emissions per capita					
GDP per capita 1998					
Total primary energy supply per capita 1998					
Percent total primary energy change 1980-97					
Motor vehicle travel per capita 1997					
Municipal waste 1998					
Industrial waste 1998					
Ecological footprint	1.00				
Sustainability index	.648**	1.00			
National parks and protected areas	.296	.344	1.00		
Country chapters of international environmental nongovernmental associations	.081	-.023	.150	1.00	
Nation-state contributions to intergovernmental environmental organizations	.188	.523**	.267	.199	1.00 *
* p < .05 (two-tailed) ** p < .01 (two-tailed)					

international environmental implementation: the Multilateral Fund for the Implementation of the Montreal Protocol, the Global Environmental Facility, and the Environment Fund of the United Nations Environment Programme (Stokke & Thomessen 2001). The third variable measures the land that has been set-aside as national parks or protected areas. Again here, rather than using the raw number of such areas — in countries that vary in size from Luxembourg to the U.S. — we have standardized this measure as well, expressing the protected areas as a percentage of the total land area of each country. These numbers are compiled by the United Nations Environment Programme's World Conservation Monitoring Center Protected Areas Database (2001).¹⁰

BIVARIATE ANALYSIS

Given the exploratory nature of our analysis, our first step was to perform a screening of all the independent variables at the level of basic construct validity: at least at the zero-order level, were the potential explanatory variables correlated with CO₂ emissions in the expected direction? Referring to Table 2, most of the potential explanatory variables passed this relatively simple test, but one variable clearly fails — the second of the overall environmental performance indicators, namely the so-called sustainability index. As can be seen from the positive correlation for this index, the nations having higher scores — meaning the ones that were supposedly the more “sustainable” — actually had *higher* CO₂ emissions than nations that were identified as being less “sustainable.” Because of the failure to pass this simple test of validity, this measure was dropped from further analysis. All other variables were retained for subsequent steps, but it is worth drawing attention to three other variables that fall into an intermediate category, indicating a potential reason for concern. Three variables that measure environmental institutionalization are also positively associated with CO₂ emissions — indicating potentially *worse* environmental performance in those states that have greater environmental institutionalization. Still, given the importance of these variables in addressing the question raised by Buttel (2000a), regarding the relationship between environmental bureaucratization and actual environmental outcomes, these three variables clearly need to be retained in the analyses.

Overall, perhaps the clearest pattern to emerge from Table 2 is that the variables having significant associations with the dependent variable at the zero-order level do not exclusively support either the earlier work on environmental sociology or the more recent environmental state literature. On the one hand, as might be expected on the basis of work by Roberts and Grimes (1997) or Dietz and Rosa (1997; see also York, Rose & Dietz 2003), both of the independent variables that reflect the expectations of environmental sociologists — GDP per capita and total primary energy supply per capita — are significantly associated with CO₂ emissions ($r = .648$, and $.677$ respectively).

Both of these variables reflect the tendency for more prosperous nations to contribute more to global climate change. At the same time, however, three of the four variables that represent actual environmental performance of the sort that are more consistent with the expectations from the environmental state literature — municipal waste per capita, industrial waste per unit of economic output, and motor vehicle travel per capita — are also significantly associated with CO₂ emissions ($r = .484, .519, \text{ and } .723$ respectively). In addition, the national-level ecological footprint is also significantly associated with the dependent variable ($r = .518$). These latter findings suggest that the countries that are less environmentally efficient will tend to contribute more to global climate change, although another efficiency measure, the 1980–97 change in energy consumption, is not significantly correlated with CO₂ emissions.

MULTIPLE REGRESSION ANALYSIS

Our next step is to move to multivariate analysis. The most straightforward approach to such an analysis is through the use of ordinary least squares (OLS) regressions, but the potential for multicollinearity in such a national-level analysis creates the need for extra safeguards. As pointed out in statistical textbooks, the central challenge of multicollinearity has to do, not with bias, but with instability, in that samples with highly intercorrelated independent variables “may render the values of the estimates seriously imprecise” (Koutsoyiannis 1973:228).

In response to the need for caution, we have employed five different safeguards in the analyses being reported here. The first involves the examination of construct validity that was summarized above. The next three are relatively standard statistical safeguards, each of which will be noted briefly in this section. The fifth and final safeguard will involve one more pair of tests that will take place at the end of all the others, with the reconsideration of the two sets of variables that are most important in differentiating between the environmental sociology and environmental state literatures, namely those reflecting prosperity and environmental institutionalization.

The first of the three statistical safeguards is the most formal, involving the explicit consideration of tolerance statistics. The standard rule of thumb is to exclude a variable from the analysis if its tolerance level drops below 0.01, or if it causes the tolerance of other variables to drop below that same level; in the present case, there were no problems of multicollinearity that were severe enough to require elimination by this test. The second statistical safeguard involves the practice recommended by statistical textbooks such as Hamilton (1990:581–82), namely “simplifying a regression by dropping nonsignificant variables,” in a process sometimes called *backward elimination*. We will begin our analyses with so-called “saturated models,” which include all of the variables in the equation. Although these are the models that have the highest

TABLE 3: Standardized Regression Coefficients and Significance Level for Regression of Carbon Dioxide Emissions per capita on Selected Independent Variables, OECD, 1990

	Full Model	Second Model	Third Model	Fourth Model	Fifth Model
GDP per capita 1998	-.004 (-.03004) .992				
Total primary energy supply per capita 1998	.161 (.307) .482	.161 (.305) .454	.153 (.290) .456	.130 (.253) .436	.122 (.236) .452
Municipal waste 1998	.163 (.005396) .424	.162 (.005359) .340	.160 (.005279) .332	.119 (.004228) .434	.120 (.004257) .421
Industrial waste 1998	.425 (.0227)** .006	.425 (.02275)** .005	.428 (.02287)** .003	.475 (.02662)** .001	.483 (.02705)** .000
Percent change in energy consumption 1980-97	.097 (.005727) .483	.096 (.005709) .461	.098 (.005824) .439	.101 (.00338) .420	.110 (.006914) .358
Motor vehicle travel per capita 1997	.684 (.840) .061	.682 (.838)* .021	.656 (.805)** .009	.547 (.707)* .012	.540 (.699)** .000
Ecological footprint 1997	.540 (.699)** .533	-.165 (-.305) .520	-.140 (-.258) .512		
National parks and protected areas	.091 (.04125) .491	.091 (.04120) .477	.090 (.04091) .468	.058 (.02180) .624	.053 (.02562) .645
Country chapters of international environmental nongovernmental associations	-.030 (-.04321) .854	-.030 (-.004327) .849			
Nation-State contributions to intergovernmental environmental organizations	-.170 (-.000006) .343	-.171 (-.000006060) .207	-.171 (-.000006062) .194	-.041 (-.000001363) .737	
Constant	(-.298)	(-.300)	(-.336)	(-1.029)	(-1.118)
Adjusted R ²	.653	.672	.689	.692	.705
(N = 29)					

TABLE 3: Standardized Regression Coefficients and Significance Level for Regression of Carbon Dioxide Emissions per capita on Selected Independent Variables, OECD, 1990 (Cont'd)

	Sixth Model	Seventh Model	Eighth Model	Final Model
GDP per capita 1998				
Total primary energy supply per capita 1998	.111 (.216) .479			
Municipal waste 1998	.124 (.004383) .399	.133 (.004697) .359		
Industrial waste 1998	.485 (.02713)** .000	.511 (.02861)** .000	.488 (.02734)** .000	.466 (.02610)** .000
Percent change in energy consumption 1980-97	.102 (.006394) .380	.118 (.007430) .294	.122 (.007665) .278	
Motor vehicle travel per capita 1997	.561 (.726)** .006	.639 (.827)** .000	.733 (.949)** .000	.688 (.891)** .000
Ecological footprint 1997				
National parks and protected areas				
Country chapters of international environmental nongovernmental associations				
Nation-state contributions to intergovernmental environmental organizations				
Constant	-.941	(-.957)	(.536)	(1.341)
Adjusted R ²	.715	.721	.722	.719
(N = 29)				

Notes: Unstandardized Regression Coefficients in parentheses.

* $p < .05$ ** $p < .01$

risks of containing what statistical textbooks sometimes call “redundant variables” (e.g., Lee & Maykovich 1995:472), this approach allows our readers to join us in examining the influence of each variable while controlling for the influence of all other variables, including overall prosperity levels and environmental institutionalization. We will then simplify these complete or saturated models by eliminating nonsignificant variables in the specific manner recommended by Hamilton (1990) — one at a time, beginning with those variables that are farthest from achieving statistical significance, and continuing until all remaining variables meet standard levels of statistical significance ($p < .05$). This process allows us to eliminate the redundant and statistically insignificant variables and to move cautiously (and transparently) toward the identification of conclusions that are most plausible substantively, as well as statistically. The third form of statistical safeguard follows directly on the second; it involves paying attention to the coefficients that remain in the equation as other variables are removed, being on the alert for wild fluctuations. The results of this process are presented in Table 3, which summarizes the results from the analyses, allowing readers to observe for themselves the striking absence of any such wild changes.

The first column of Table 3 presents the results of the full or saturated model, which need to be interpreted with caution in light of the potential for multicollinearity noted above. As can be seen from this column, only one of the independent variables is significant at $p < 0.05$ when all other independent variables are included: Kilograms of Industrial Waste produced per US \$1000 GDP. One additional variable, Vehicle Travel per capita, reaches a lower level of significance ($p < .10$). The middle columns of this table show the coefficients of the variables that remain in the equation as each of the “least significant” variables is eliminated, one at a time. The actual results are remarkable mainly for the absence of wild fluctuations in coefficients: Out of 44 coefficients reported in the second through the final (ninth) models of Table 3, there is not a single case where the direction (sign) of a variable reverses, and there is only one case where the coefficient shifts by as much as .10 — the change from $\beta = .656$ to .547 for Motor Vehicle Travel per capita between the third and fourth models. Even for the case of this independent variable, however, the coefficient in the original or saturated model is .684, while the coefficient in the final or reduced-form model is .688 — scarcely the kind of dramatic change that would normally be taken as indicating reasons for concern. Instead, so stable are the underlying relationships that, even after completing the entire process of reverse elimination, the two variables that emerge as statistically significant are the same two that have the strongest associations in the full model. The final regression equation yields an adjusted R^2 of .719, with the two significant predictors of CO_2 emissions being *per capita* Motor Vehicle travel ($\beta = .688$) and *per dollar* Industrial Waste generation — the latter of which

also has a final or reduced-form *beta* (.466) that shows very little change from its initial value (.425) in the saturated model.¹¹

The last of the double-checks, as mentioned above, involves a final pair of tests of the differing expectations derived from work in environmental sociology and the environmental state, respectively. For the environmental sociology literature, and the argument that there will be an “enduring conflict” between the economy and environmental protection (Schnaiberg & Gould 1994), it is important to make sure that the lack of significance for *per capita* Gross Domestic Product is not merely an artifact of the way in which the analysis has been carried out. It is not: even when we attempt to force this variable back in to the final equation, along with Motor Vehicle Travel and Industrial Waste Generation, the GDP measure proves to have no significant effect on CO₂ emissions per capita ($p > .300$). For the environmental state literature, similarly, when we add back in the three measures of environmental institutionalization adapted from Frank et al. (2000a) — National Parks/Protected Areas, Chapters of Environmental NGOs, and Contributions to Intergovernmental Environmental Organizations, also in combination with Motor Vehicle Travel and Industrial Waste Generation — there are no statistically significant effects for any of the three measures ($p > .6$).

Discussion

All in all, the empirical findings provide a mixed picture: they provide some support but also raise questions regarding the expectations that are drawn from both the environmental sociology and environmental state literatures. First, in contrast to the expectations of the environmental sociologists of past decades — and in stark contrast to the claims by major political leaders of some nations — straightforward economic indicators such as the GDP prove not to have significant effects on CO₂ emissions in *any* of the multivariate analyses. At least for the relatively prosperous nations of the OECD, in other words, despite the apparent strength of the political leaders’ convictions, the correlations between CO₂ emissions per capita and economic output per capita drop to insignificance once other variables are controlled, just as they do in recent economic assessments that correct the shortcomings of earlier models (see Krause et al. 2002, 2003).

Second, in contrast to expectations from the more recent literature on the environmental state, measures of environmental institutionalization *also* have no significant associations with actual CO₂ emissions, in *any* of the multivariate analyses. Instead, as can be seen in Table 3, these measures actually drop out of the analysis more quickly than any of the other potential explanatory variables in the analysis. As noted initially in the context of Table 2, even the zero-order correlations suggest that it may be unwise to assume that increased levels of

environmental institutionalization will mean that environmental protection “has been accepted as a basic state responsibility”: All three of the environmental institutionalization measures adapted from Frank et al. (2000a, 2000b) actually correlate *positively* with CO₂ emissions and with one of the two significant predictor variables, namely Motor Vehicle Travel. (Two of the specific correlations — those involving national chapters of International Environmental Nongovernmental Associations and nation-state contributions to Intergovernmental Environmental Organizations — actually prove to be statistically significant in the “wrong” direction in the zero-order correlation matrix; $r = .473$ and $.412$, respectively.) If taken at face value, those correlations would suggest that the environmental institutionalization measures used by Frank et al. are actually predictors of *worse* environmental performance. As evidence that such an interpretation would be too simplistic, however, these same variables are essentially uncorrelated with the other significant independent variable, namely Industrial Waste per unit of output.

Rather than providing clear or unproblematic support for either set of expectations, in short, the findings from the present study suggest that there may be a need to move away from arguments about whether one body of work *or* the other should be seen as clearly superior. At least in the present study, the measures that emerge as having clear and stable statistical significance are ones that do not correspond neatly with the expectations derived either from the more recent literature on the environmental state or from the established literature in environmental sociology. Instead, as suggested by one branch of the literature on the environmental state, namely the literature on ecological modernization, the findings point to the importance of ecological efficiency. At the same time, however, the findings point to the importance of the recognition that national-level political processes cannot be ignored and that we cannot assume that top-down processes of diffusion will result in isomorphism, or universalism, in environmental protection. For the future, as these findings suggest, there may be greater value in developing a more nuanced recognition of the importance of contributions that are derived from both bodies of literature, rather than expecting that there will be black-and-white incompatibilities between the two (cf. Buttel 2000a; Fisher & Freudenburg 2001).

At least in the case of actual CO₂ emissions per capita across the industrialized nations, to be more specific, the two measures that jointly explain nearly three-fourths of the variance are perhaps best seen as representing *specific forms* of ecological efficiency that do not appear to be emerging “naturally” or consistently across the full range of OECD countries. Instead, these two forms of ecological efficiency may be more accurately seen as representing relatively explicit, *nonsymbolic* policy choices by nation-states, as well as by individual firms. The first has to do with the degree to which a nation’s transportation

infrastructure has become dependent upon individual vehicles (as measured by the number of vehicle-kilometers of travel per capita). To repeat the point raised earlier in this article, vehicular travel does not merely represent an automatic force of nature, even though it is sometimes seen that way in particular countries. Instead, it also reflects the accumulation of policy decisions — decisions, for example, to subsidize specific fuels, invest in specific forms of transportation infrastructure, and to subsidize or encourage certain forms of urban development but not others (see e.g. the discussion by Gramling 1995). The second measure has to do with the ecological efficiency of national industrial output (as measured by *non*-CO₂ waste from manufacturing industries, per unit of economic output). Because the measure of industrial emissions is standardized not in terms of population (as is the case for CO₂ emissions) but in terms of economic output or dollars, these results effectively provide a clear independent measure of industrial waste, or its obverse, industrial-ecological efficiency.

IMPLICATIONS FOR THE FUTURE

Although the issues involved in state constraints on late or advanced capitalism have received a good deal of attention from sociological theorists in recent decades, the debates have shown few signs of moving toward closure. Part of the reason may be that so much of the discussion thus far has been carried out at relatively high levels of abstraction, but with relatively low levels of empirical evidence. Another factor, which may well be related, is that many of the debates have been carried out in terms of relatively stark distinctions. Such debates, of course, are important, and in view of the complex and multifaceted issues involved, they are certainly deserving of continued theoretical examination. We would argue, however, that these issues deserve theoretically informed empirical examination as well.

Lest there be any confusion, we wish to stress again that we see the present analysis as *beginning* the movement toward a more thorough empirical analysis of environmental outcomes, and not as bringing the process to an end. To repeat our earlier warnings, the multivariate analyses in the present article need to be understood not as providing the definitive word on the topic, but as offering an initial empirical examination of the competing expectations that have been expressed to date in two bodies of work that have largely been developed under conditions of excessive isolation from one another to date. There is clearly also a need to recognize that future analyses might provide definitive evidence for the universal superiority of expectations derived either from the literature in environmental sociology or from the newer literature on the environmental state, although in light of this article's findings, it also needs to be recognized

that the ultimate verdict may not provide an unconditional endorsement of either perspective.

On the one hand, the more pessimistic views about the economic feasibility of environmental protection, as expressed in the literature of environmental sociology, do not hold in this case. Although variables reflecting economic strength are significantly associated with CO₂ emissions on the bivariate level, those relationships reduce to insignificance — and rapidly drop out of the analysis — when readily available measures of ecological efficiency are included in the equation. At the same time, however, the empirical findings reinforce the warnings of environmental sociologists such as Buttel (2000a:118), about the importance of assessing “actual environmental protection outcomes” rather than simply assuming that *the proliferation of environmental institutions* can be taken as being synonymous with the *effective protection of the environment*. At least in the case of this study, the measures that reflect environmental institutionalization were found to have no significant association with actual levels of CO₂ emissions from advanced nation-states. Rather than showing international convergence toward the actual acceptance of environmental protection as a “basic state responsibility,” in short, our findings suggest that the *actual* levels of state acceptance of any responsibility to protect the environment appear to vary quite widely. In fact, they tend to vary in ways that simply are not believably associated with sheer levels of environmental institutionalization — at least not in the “expected” direction.

In terms of future research directions, accordingly, perhaps the central implications of the present article involve the need to do more to bring together the often-separated worlds of theoretical and empirical work, and in the process, to improve both. In the case of the variables predicting actual environmental performance, the analysis in the present article leads to findings that are mixed but that are also readily interpretable. Over the longer run, sociology may well find that the most fruitful lines of analysis will involve conceptual as well as empirical analyses that move beyond relatively crude, either/or discussions, and that move instead toward more rigorous examinations of *the conditions under which* the advanced or postindustrial state will see the kinds of outcomes predicted by theorists of environmental sociology or of the environmental state. These types of analyses are particularly important because of their relevance to the politics of environmental regulation. In other words, rather than being content with a mere repetition or even a refinement of relatively undifferentiated arguments, sociologists need to insist on increased theoretical precision in conjunction with empirical work that is more focused, more carefully differentiated, and more rigorous.

Notes

1. As spelled out in greater detail in the technical literature, other important greenhouse gases include methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), and sulphur hexafluoride (SF_6) (for a summary, see Intergovernmental Panel for Climate Change (IPCC) Working Group 1 2001). Recent research from organizations such as the Organization for Economic Cooperation and Development (OECD) has begun to look at the "other greenhouse gases" (e.g., Burniaux 2000), but there are important methodological reasons for focusing on CO_2 . As noted by Dietz and Rosa, "Data on other greenhouse gases are also less reliable than the industrial CO_2 data. Current estimates of CH_4 (methane) emissions are uncertain to at least a factor of two and do not take account of biomass burning, which may contribute perhaps one-fifth of the total anthropogenic emissions. Data on chlorofluorocarbons are reported as an aggregate for the European community nations, which are among the highest chlorofluorocarbon producers and consumers. Nitrous oxide emissions are available only for a handful of nations" (Dietz & Rosa 1997:77).
2. Although India and China also have been identified as potentially large emitters of carbon dioxide, their emissions have not yet begun to rival those of the world's largest economies, in part because their *per capita* emissions continue to be significantly less than those of OECD members (only 0.91 and 2.47 tonnes per person, respectively, as compared to 20.35 tonnes per person in the United States in 1998 [see OECD 2001]).
3. The one excluded nation is the most recent addition to the OECD, the Slovak Republic, for which few data are presently available.
4. See www.iea.org/about/index.htm for more information.
5. A reviewer of an earlier draft of this paper asked for a comparison between GDP and GNP, or Gross *National* Product. The practical differences are modest, but the GDP is generally seen as the better indicator for analyses of CO_2 emissions in that, unlike GNP figures, the GDP totals are intended to reflect only the economic activities (and jobs) that exist within a given country. Thus for example, if a coal-fired power plant in Bolivia were to be owned by a company in Spain, it would contribute to the Gross *Domestic* Product of the same country where its CO_2 emissions are produced, namely Bolivia, while contributing to the Gross *National* Product of Spain.
6. www.yale.edu/envirocenter/research/esi.html.
7. www.ciesin.columbia.edu/indicators/ESI/ESI_01a.pdf (Accessed October 1, 2003). Intriguingly, although the index includes measures of multiple components of sustainability for 122 countries, there is no overlap between the variables used in the index and those in our analysis.
8. http://www.ciesin.columbia.edu/indicators/ESI/press_rel.html.
9. The other two dependent variables of Frank et al. have to do with the years in which laws were passed or ministries were established. Given the changing policies of recent decades, most analysts of the debates surrounding the issue of global warming would be quite critical of including such measures as reflections of present-day policies. Particularly during the 1960s and 1970s, the U.S. was one of the early adopters of energy policies

that affect emissions, but during the 1980s and 1990s, the U.S. came to be seen as one of the most intractable opponents of policies to mitigate against global warming; for more detailed discussions, see Fisher (2004); McCright and Dunlap (2000, 2003).

10. www.unep-wcmc.org/protected_areas/data/un_annex.htm.

11. Although a reviewer for this article suggested that the results of this analysis might be biased by the inclusion of the U.S., removing the U.S. leads to little change in the results: even though the adjusted R^2 drops somewhat, to .620, the same two independent variables emerge as the only significant variables.

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Do Facilities with Distant Headquarters Pollute More? How Civic Engagement Conditions the Environmental Performance of Absentee Managed Plants*

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Abstract

Scholars agree that due to advances in transportation and communication technologies, firms can extend their reach and more easily externalize their pollution by setting up plants in far-flung, less regulated areas. They also concur that absentee managed plants or facilities with remote headquarters are rapidly becoming the modal type of industrial organization. However, they have yet to examine the environmental performance of these plants and how their propensity to pollute is conditioned by the types of communities that harbor them. This reflects a more general failure on the part of social scientists to study the impact that different organizational forms have on the physical environment. Using the EPA's newly published 2000 Toxics Release Inventory, we test the direct and interactive effects of absentee management on the environmental performance of chemical plants in the U.S. Findings reveal that absentee managed plants emit more toxins, on average, than other plants. However, when we take into account the amount of chemicals that plants have on-site and other factors that influence facilities' emissions, we discover that the environmental performance of absentee managed plants is no worse than that of other plants. Whether plants with distant headquarters emit more toxins largely depends on the presence of local institutions that facilitate civic engagement. When embedded in communities with more associations, churches, and "third places," absentee managed plants emit significantly fewer toxins.

** We are grateful to numerous colleagues and other scholars who provided comments on earlier versions of this article. This research was supported by grants from the National Science Foundation and the EPA's program on Corporate Environmental Performance and the Effectiveness of Government Interventions. Direct correspondence to Don Grant, Department of Sociology, 417B Social Science Building, University of Arizona, Tucson, AZ 85721. E-mail: grantd@u.arizona.edu.*

There are few human-made environmental problems that are not caused by or through organizations (Clarke 1989; Perrow 1997). While individuals' lifestyles, consumption habits, and so on contribute to environmental degradation (York, Rosa & Dietz 2003), many, if not most, pollutants are emitted at the site of production or have their source in industrial organizations. And yet sociologists have rarely examined the impact that different organizational forms have on pollution. Nowhere is this omission more obvious than in research on the consequences of firms expanding and decentralizing production across space.

Sociologists have long speculated that factories with distant headquarters are a threat to communities and their physical environments. Over fifty years ago, when the military-industrial complex was growing and "war plants" were being created outside the nation's industrial heartland, C. Wright Mills warned that absentee managed plants are the "puppets" of "big business" and will exploit the social and natural resources of their host communities (Mills & Ulmer 1946 [1970]; see also Hooks & Bloomquist 1992). Today, as the winds of globalization disperse still more facilities across the landscape, researchers continue to express concerns about the local impact of absentee managed plants. In particular, environmental and organizational sociologists now worry that due to advances in transportation and communication technologies, more corporations will externalize their pollution by setting up plants in far-flung, less regulated areas (Eskelund & Harrison 1998; Muthukumara & Wheeler 1998; see also Barnet & Muller 1974; Bunker 1984; Ehrhardt-Martinez 1998).

However, like Mills, environmental and organizational sociologists have not analyzed the environmental performance of absentee managed plants. Nor have they explored how their propensity to pollute varies by the types of communities that harbor them. Environmental sociologists have focused on the environmental harm caused by such global factors as long economic cycles and the world-system (Chew 1999; Grimes, Roberts & Manale 1993), whereas organizational scholars have concentrated on the financial and employment consequences of globalization (Bartlett & Ghoshal 1993; Dickens 1999; Milkman 1991). To begin to remedy this situation, we examine how the emissions of absentee managed plants are conditioned by their host communities.

This topic is a particularly important one. Because more companies can manage operations from afar, absentee managed plants are rapidly becoming the modal type of industrial organization. Hence, if they are an environmental threat, as some suggest, then a type of organizational virus is spreading throughout the ecosystem that demands analysis (see also Young & Lyson 1993). In addition, there is a substantial body of sociological research that suggests absentee managed plants influence social outcomes, including poverty (Young & Lyson 1993), infant mortality (Wimberly 1990), industrial conflict (Kerr & Siegel 1954), and underdevelopment (Wallerstein 1974). Whether absentee

managed plants also impact environmental outcomes remains to be determined. Finally, there is a widespread perception within the antiglobalization movement today that absentee managed plants pollute more than locally managed ones. Critics of globalization assume further, like Mills, that there is little that local communities themselves can do about this problem because their survival depends on attracting and accommodating footloose plants (Dembo, Morehouse & Wykle 1990; Mander & Goldsmith 1996; Shuman 1998).

We contend the latter logic is simplistic on at least two counts. First, to suggest that communities are powerless to “outside predators” is to ignore the fact that responsibility for protecting the environment (and workers) from the forces of globalization has gradually devolved from the nation-state to the local level (Tolbert, Lyson & Irwin 1998; cf. Frank, Hironaka & Schofer 2000). This is true in developing countries where pollution is often unregulated by national governments and local communities must therefore negotiate environmental standards with manufacturers (Hartman, Huq & Wheeler 1997). It is true as well in developed countries like the U.S. where command-and-control approaches to regulating industrial toxins have been slowly replaced by strategies that rely on the participation of local citizens (Ringquist 1995).

Second, critics overlook recent work on civil society and structural embeddedness (Granovetter 1985; Piore & Sabel 1984; Putnam 2000; Tolbert et al. 1998) that speaks to the ability of communities to root organizations in place and control their behavior through informal means. This research suggests that while a community can do little to change the *physical* distance between itself and an absentee managed plant’s headquarters, it can reduce the *social* distance between itself and the plant by incorporating the headquarters in a dense network of local institutions. In this way, absentee managed plants may come to identify with their host community and work to maintain its physical integrity. In this article, we demonstrate that absentee managed plants emit fewer toxins when embedded in communities that are civically engaged or rich in social capital.

Using the Environmental Protection Agency’s newly published 2000 Toxics Release Inventory (U.S. Environmental Protection Agency 2002), we test the direct and interactive effects of absentee management on the emissions of chemical plants in the U.S. The 2000 edition of the Toxic Release Inventory is not only more current than the editions used in previous analyses of chemical plants’ pollution behavior (Grant, Jones & Bergesen 2002), but also covers more than twice as many industrial toxins. We focus on the U.S. for reasons of data availability and because the spatial restructuring of production has been especially great in this country during the global era (Brady & Wallace 2000; Grant 1995). Many factories have migrated from the corporate centers of the Rustbelt region to the “better business climates” of the Sunbelt states in

response to global competition (Bluestone & Harrison 1982; Grant & Wallace 1994); at the same time, other plants operated by foreign firms have moved to the U.S. to seize new investment opportunities (Brady & Wallace 2000; Grant & Hutchinson 1996). As a result of these and related developments, an unprecedented number of plants in the U.S. are now absentee managed. We study the effects of absentee management at the facility (as opposed to firm) level because industrial toxins are emitted at specific production sites and the environmental performance of individual facilities is of more immediate concern to local communities (Hartman, Huq & Wheeler 1997).

GLOBALIZATION, ABSENTEE MANAGEMENT, AND POLLUTION

Proponents and critics of globalization offer starkly different views about the environmental performance of absentee managed plants. Proponents suggest that plants with remote headquarters often use more efficient and cleaner technologies than locally managed ones. They argue that as companies mature and develop standardized production processes, they decentralize their branches to periphery regions to capture the efficiencies of their best input-saving technologies (Mol 1995; Mol & Sonnenfeld 2002; Norton & Rees 1979; Vernon 1966). Proponents of globalization also contend that global firms typically have more uniform operating procedures and greater resources to invest in environmental initiatives. They suggest further that because environmental groups are eager to sue companies capable of paying large settlements, the satellite plants of major corporations are under intense pressure from their headquarters to manage their chemicals effectively as possible and perhaps even overcomply with regulations (see Arora & Cason 1995; Hamilton 1995).

In contrast, critics of globalization argue that firms are increasing their power by decentralizing production, a phenomenon Harrison describes as “concentration without centralization” (Harrison 1994). According to these scholars, firms often relocate plants to distant areas as a way to avoid regulation and externalize their pollution. They suggest, therefore, that absentee managed plants are among the dirtiest. Dependency researchers, for example, argue that the maquiladoras created in the free trade zones of northern Mexico and other parts of Latin American are particularly poor environmental stewards (Adeola 2000; Simon 2000; see also Dasgupta, Siddhartha, Knight, and Love 1999). They predict that as international competition for jobs intensifies, developing countries will feel pressure to create additional “pollution havens” to attract plants (see Muthukumara and Wheeler 1998; Eskeland and Harrison 1998). The same dynamic allegedly operates within the United States, where many chemical firms have tried to flee costly regulations and fend off their foreign competition by relocating plants in the “better business climates” of the Sunbelt states

(Feiock & Rowland 1991). This strategy reinforces an already strong tendency among multi-locational businesses to stress the exchange value of natural places over their potential use values, i.e., to treat them as expendable commodities (Logan & Molotch 1989). Consistent with this reasoning, Davis (1992) finds that the owners of chemical companies with multiple out-of-state plants are significantly less willing to sacrifice production to meet environmental standards.

Figures 1 and 2 report how the emission¹ levels of chemical plants with out-of-state² headquarters compare with the emission levels of other chemical plants according to the 2000 Toxics Release Inventory. Since the latter's inception in the late 1980s, the number of industrial chemicals determined to be toxic and therefore tracked by the EPA has more than doubled from 319 to 667 chemicals. Figure 1 compares the amount of toxins released by different plants using the EPA's original list of 319 chemicals. It shows that the average emission level of plants with out-of-state headquarters (42 million toxic pounds) is approximately 24% greater than the average emission level of other plants (34 million toxic pounds). Figure 2 shows that when we use the expanded or current list of toxins, the differences between the two plant types are even more pronounced. Absentee managed plants' average emission level (99 million toxic pounds) is roughly 57% more than that of other plants (63 million toxic pounds). Hence, there is empirical support for critics' claim that toxic emissions are concentrated in plants that are managed from afar, particularly in terms of the expanded set of toxins now used by the EPA.

Of course, it could be that absentee managed plants emit more toxins, on average, simply because they use more toxic chemicals. That is, firms may be emboldened to process larger quantities of chemicals when they can do so from a safe distance. Hence, when one takes into account the amount of toxins that plants have at their disposal, it may be that plants with distant headquarters are no more prone to pollute than other plants. Even so, the total amount of toxins emitted by plants is of paramount importance to local communities. Also, while communities may be unable to set formal limits on how many toxins a plant processes, communities can informally pressure a plant to manage its chemicals effectively, i.e., to minimize its toxic releases. Whether communities can reduce the emissions of plants with the least attachment to place — absentee managed ones — is the subject of our inquiry.

Importantly, in assuming that communities are powerless to outside organizations, critics ignore the fact that communities are also organizations with problem solving capacities. Literature on structural embeddedness (Granovetter 1985; Piore & Sabel 1984; Romo & Schwartz 1995; Storper & Walker 1989; see also Selznick 1949) suggests that businesses rarely operate in a social vacuum. Instead, they are subject to pressure from other kinds of organizations, including their host communities (see also Garcia-Johnson 1998;

Garcia-Johnson, Gereffi & Sasser 2000). The same literature also suggests that the types of informal pressures exerted by these other organizations can have as strong an impact on business behavior as market forces. Below, we build on these insights to suggest how the emissions of absentee managed plants are conditioned by the civic engagement of their host communities.

THE CIVIC ENGAGEMENT OF POLLUTION

Rather than presuming that absentee managed plants will or will not exploit communities and their habitats, literature on civil society suggests the conditions under which such plants might identify with local places and seek to preserve their physical integrity. This research stresses the ability of communities, as organizations, to address problems, including those posed by “external” organizations. This literature has its origins in the classical thought of Tocqueville ([1835] 1862), Durkheim ([1933] 1984) and the early Chicago school, as well as the recent writings of Dahl (1971), Key (1984), Bollen (1980), and especially Etzioni (1996) and Putnam (1993, 2000). According to these scholars, local institutions such as churches, associations, and so-called “third places” (barber shops, cafes, and other sites of informal public life) create community solidarity and serve as forums for civic engagement. In turn, these institutions help root actors to places and enhance the local quality of life.

Consistent with this logic, several studies document how residents and business leaders become integrated in communities through their participation in churches and volunteer associations (for a review of these studies, see Cassel 1999). Others report that in communities with more social capital, rates of poverty, unemployment, and crime tend to be lower (Tolbert, Lyson & Irwin 1998; Sampson & Groves 1989; see also Green & Haines 2001). That civic engagement might mitigate the harmful social effects of absentee managed plants has been examined by Lyson and his colleagues. They find that in agriculture dependent counties dominated by absentee managed farms, community welfare is higher when residents are civically engaged (Lyson, Torres & Welsh 2001). In another study, they find that in counties with many absentee managed plants, rates of poverty and infant mortality are lower where civic engagement is high (Young & Lyson 1993).

Going one step further, some scholars suggest that civic engagement may also influence environmental outcomes. Mesch and Manor (1998), for example, argue that residents and business leaders develop an emotional bond with their neighborhood’s physical environment as they invest more of themselves in local institutions. Scholars also document how civically engaged residents succeed in preserving their neighborhoods’ physical beauty (Mesch 1996; Molotch, Freudenberg & Paulsen 2000) and can persuade businesses to contribute to local environmental projects (Sklar & Ames 1983).

Particularly relevant to our study, scholars at the World Bank have begun exploring how civic engagement affects the emissions of individual facilities (Hartman, Huq & Wheeler 1997; Pargul & Wheeler 1995; Pargal et al. 2002). They contend that in developing countries, where formal regulation (e.g., uniform air quality standards, mandated pollution technologies) tends to be weak or nonexistent, informal regulation exercised by communities (e.g., public appeals, protests) may strongly influence corporate environmental performance. They speculate that civic engagement may also influence certain types of corporate pollution in the U.S. that are largely unregulated, such as toxins released by manufacturers.³

In short, a growing body of research suggests that communities can improve the environmental performance of manufacturing plants by reducing the *social* distance between themselves and plants. According to this work, unless plants develop social ties to their host communities, they are unlikely to participate in public conversations about local environmental priorities. However, where there are numerous institutional settings that allow residents and plant managers to meet and develop a common appreciation of place, plants are more likely to participate in public conversations about the environment and curb their emissions.

While several scholars concur that civic engagement matters for the environment, they disagree over the mechanisms involved in the civic engagement of pollution. They also differ over whether civic engagement has a direct or interactive effect on corporate environmental performance. Scholars, like those at the World Bank, who subscribe to a strong version of the social capital model, suggest that local institutions curb pollution by enabling residents to mobilize against polluters and voice their grievances. They suggest further that civic engagement improves the environmental performance of all plants, whether absentee or locally managed, because all are prone to pollute. Hence, they predict that civic engagement directly affects emissions.

In contrast, other scholars, like Lyson and his colleagues, who subscribe to a weaker or qualified version of the social capital model, emphasize how local institutions function to coopt certain types of businesses (see also Galaskiewicz 1991). They suggest that civic communities emerge out of local clusters of small, locally owned and managed establishments. While not denying that large corporations can and do in fact operate in such communities, they contend that without a class of small business owners, the odds of establishing a civic community are considerably less. Thus, there are two types of communities or local economies, those largely organized by corporate capitalism and those by community capitalism. Workers in the former tend to look outward to the global economy and their allegiance lies more with the firm than the community. Workers and residents of the latter look inward to the community since it is their primary source of support.

According to a qualified version of the social capital model, civic communities are best understood as “problem solving” places. Their civic structures (e.g., churches, voluntary associations, “third places”) provide social spaces where citizens can assemble and address community issues (see also Barber 1996:285). Put differently, civic institutions provide not so much a format for venting grievances or even instilling a sense of belonging as they create venues for citizens to solve mutual problems like pollution. These problems can be resolved amicably or through direct contestation, but the more such problem-solving places exist, the better equipped a community will be to solve these problems.

It follows from this argument that the problem solving capacity of local communities has special importance for the environmental performance of absentee managed plants. Absentee managers have no motive to behave in a socially and environmentally responsible fashion and therefore will pollute if they can. Local managers would like to pollute but they do not feel they can because they have more personal and material ties to their host community and are integrated in its structures. Local institutions are important, then, because they smother absentee managed plants and their managers with social pressure to behave appropriately in the absence of strong local connections. Thus, they compensate for the lack of such ties. In short, a qualified version of the social capital model would predict that civic engagement has an interactive effect, i.e., local institutions lower the emissions of plants if the latter are absentee managed.

While the idea that civic engagement can protect communities from especially dangerous polluters is reassuring, serious doubts nonetheless remain. Civil society researchers theorize that civic engagement can reduce pollution, but these assertions stand in dire need of empirical analysis. Many remain skeptical, therefore, that the type of informal group phenomena emphasized by civil society theorists affects environmental outcomes (see also Petras 1997). Along similar lines, Portes (1998) argues that while there are demonstrated benefits of social capital for individuals (e.g., finding jobs, avoiding criminal behavior), to suggest that social capital is also a property of communities borders on circular reasoning. He notes a widespread tendency among civil society researchers to examine positive outcomes, such as economic development and low crime rates, and then infer the existence of social capital from the same outcomes. Still others have criticized the civil society thesis for its elitist bias, suggesting that it ignores how factors like class and race may account for both the existence of social capital and its effects (Skocpol 1996:25). Conversely, they sometimes accuse civil society researchers of conflating social capital with these factors. They would note, for instance, that in their examinations of pollution outcomes in developing countries, World Bank researchers routinely use income per capita as their indicator of social capital.

Our study seeks to address these concerns. First, we empirically model the impact of civic engagement on chemical plants' emissions. In the process, we address Portes's complaints about circularity by treating the factors that facilitate civic engagement as separate from their effects. It is probably true, as Portes suggests, that social connectedness cannot be exactly measured at the community level. However, we are able to examine the relationship between pollution and what scholars claim are some of the institutional sources of social connectedness — local churches, associations, and third places. If we find that absentee managed plants emit fewer toxins when embedded in communities with more churches, associations, and third places, this would be consistent with a qualified version of the social capital model, which says that civic engagement is especially important for businesses with weak local ties. Finally, we test our indicators of civic engagement institutions alongside measures of race and class that may explain the former's impact and/or confound them.

Data and Methods

We examine the direct and contingent effects of absentee management on toxic emissions within the U.S. chemical industry. The unit of analysis for this study is the chemical plant and the data file consists of 1859 cases. Since it is at the site of production that industrial toxins are usually emitted, and absentee management is an attribute of individual plants, we focus on pollution outcomes at the plant level rather than the firm level.⁴

To date, the only other study to examine the emissions of U.S. chemical plants is Grant, Jones, and Bergesen (2002), which looks at outcomes for the year 1990. We examine emission outcomes with more recent (2000) and comprehensive data, but also with several additional controls and new key independent variables (absentee management and civic engagement). We conduct a cross-sectional analysis because the remoteness of a plant's headquarters is not likely to fluctuate much from one year to the next, nor is the civic engagement of its surrounding community.⁵

Our dependent variable, toxic emissions, is taken from the EPA's Toxics Release Inventory and is operationalized as the annual pounds of chemicals released on-site (weighted by their toxicity). Plants with high scores on this measure are those with high emission levels. To determine if the causes of emissions differ depending on whether one uses the EPA's original list of chemicals or its more recent, expanded one, we conduct separate analyses of each. Because toxic emissions are highly skewed, we transform the dependent variable when conducting our regression analyses by taking its natural logarithm.

Absentee managed plant is coded as a dummy variable (1 = yes) and defined as any chemical facility whose headquarters is located out of state.⁶ While there may be other ways to operationalize absentee management (e.g. miles between a facility and its headquarters), when researchers have examined its effects within the U.S., it has normally been in terms of whether a plant and its headquarters are in the same state (e.g., Bluestone & Harrison 1982; Davis 1992).⁷ This is because since the dawning of Reagan's New Federalism, not only has interstate competition for businesses intensified, but states have assumed a larger responsibility for regulating industrial toxins. Hence, the concern is that firms will try to externalize their pollution by locating their plants in other states that offer "more hospitable business climates."

To determine whether the emissions of absentee managed plants are conditioned by the social capital of their host communities, we interact our measure of absentee managed plant with three indicators of civic engagement institutions — (log) number of associations, (log) number of churches, and (log) number of third places in a plant's county. These indicators have also been used by Tolbert, Lyson & Irwin (1998) in their study of civic engagement across U.S. counties.⁸ By mapping county-specific counts of associations, churches, and third places onto our data for individual plants, we are able to capture the local institutional context in which a plant is embedded. While none of these indicators directly measures the mechanisms said to be involved in the civic engagement of pollution (e.g., voicing grievances versus instilling loyalty), they do gauge the presence of institutions said to facilitate social connectedness and problem solving. Each indicator is expected to have a negative statistical interaction with absentee managed plant or reduce the latter's emissions.

Our models also control for several other industrial, regulatory, demographic, and organizational factors that are summarized in Table 1 (for a discussion of some of these controls and their operationalizations, see Grant et al. 2002). We conduct analyses of the determinants of emissions using a random effects model available in LIMDEP that specifies plants belonging to the same firm have a shared error. The particular version of the random effects model used here also has an unbalanced design (i.e., it accounts for the fact there is not the same number of plants in each firm).

Findings

Table 2 examines the determinants of chemical plants' emissions using the EPA's original list of toxins or "core chemicals." Looking first at the controls in model 1, we see that log emissions are significantly lower when plants specialize in soaps/detergents. Conversely, log emissions are significantly higher when plants have more chemicals on-site and they and their parent firm are large.

Contrary to what one might expect, state environmental expenditures, voting behavior, and the race/class characteristics of neighborhoods are unrelated to the emission of core chemicals.⁹

Most importantly, we see that net of the various controls, absentee managed branch has no significant direct effect on log emissions. Other analyses not reported here revealed that the inclusion of log toxic chemicals on-site changed the effect of absentee managed plant from positive and significant to nonsignificant. This suggests that absentee managed plants have higher emission levels (see Figure 1) in large part because their potential for emissions is so much greater. Indeed, absentee managed plants store and use, on average, 27 trillion pounds of core chemicals on-site compared with 13 trillion toxic pounds for other plants.

Findings from model 1, therefore, suggest that both critics and supporters of globalization are wrong — absentee management per se has neither a harmful nor a beneficial impact on environmental performance. Still, communities have a special stake in minimizing the emissions of absentee managed plants precisely because the latter use such large quantities of chemicals and they are major culprits of industrial pollution (Figure 1).

This raises the question of whether certain types of communities are more successful than others at lowering absentee managed plants' emissions. Results in model 1 suggest that log associations, log churches, and log third places have no direct bearing on the log emissions of all plants. However, a qualified version of the social capital model (Tolbert et al. 1998) would suggest that these factors may still condition the environmental performance of those plants with the weakest ties to communities — absentee managed ones. In models 2 through 4, we explore this possibility by interacting absentee managed plant with our indicators of civic engagement institutions. Results indicate that the emissions of absentee managed plants are significantly lower when they are located in counties with more associations (model 2), churches (model 3), and third places (model 4).

In Table 3, we replicate our analysis of the determinants of emissions but this time using the EPA's more comprehensive list of toxic chemicals. In model 1, we see, as before, that plants have significantly lower emissions when they specialize in soap/detergents and higher emissions when they process more chemicals, are large, and their parent firm is large. Interestingly, when using the more recent, expanded list of chemicals, plants have significantly higher emissions when located in poorer neighborhoods. While one cannot generalize from this finding that poor neighborhoods are exposed to more absolute amounts of toxins (Bullard 1990), it does speak to how class influences the emissions of plants and the possibility that as more chemicals are added to the EPA's list of toxins, the environmental dangers faced by poor communities will become more obvious.

TABLE 1: Variable Summary

	Definition	Source	Means/S.D.
<i>Dependent Variable</i>			
Log emissions	Log annual pounds of chemicals released on-site (weighted by toxicity) ¹	TRI	12.59/3.88
<i>Key Independent Variables</i>			
Absentee managed plant	Dummy for facilities with out-of-state headquarters (comparison group is all other facilities)		D+B .35/.47
Log associations	Log number of associations in a county	EA	4.95/1.17
Log churches	Log number of churches in a county	CC	5.57/1.20
Log third places	Log number of small retail establishments in a county	CBP	6.25/1.61
<i>Controls</i>			
Subindustry characteristics:			
Industrial inorganic chemicals	A set of dummy variables representing the specific sector within the chemical industry to which a facility belongs (comparison group is miscellaneous chemicals)	D+B	.13/.34
Plastics			.13/.34
Drugs			.06/.24
Soaps and eetergents			.09/.29
Paints			.15/.35
Industrial organic chemicals			.17/.37
Agricultural chemicals			.07/.26
Environmental expenditures		NCSL	.01/.01
Percent voted	Percent of total state expenditures on the environment	CB	.35/.06
Percent poor	Percent of county residents who voted inlast national election	CB	.12/.05
Percent black	Percent of poor residents in zip code area	CB	.15/.14
Percent Hispanic	Percent of Black residents in zip code area	CB	.10/.13
Log toxic chemicals on-site	Percent of Hispanic residents in zip code area	TRI	23.78/4.65
Log firm size	Log maximum amount of toxic chemicals used in a year by a plant	D+B	6.45/2.55
Log plant size	Log number of employees in a plant's parent firm		
	Log number of employees in a plant	D+B	4.41/1.44

² Figures are for expanded list of chemicals.

CB — U.S. Census Bureau D+B - Dun and Bradstreet TRI - Toxics Release Inventory

CCP — County Business PatternsEA - Encyclopedia of Associations

CC — Census of ChurchesNCSL - National Council of State Legislatures

In model 1, we see once again that the effect of absentee managed plant is non-significant when controlling for other relevant factors, in particular the amount of toxins that a plant uses and stores on-site. The latter suggests that absentee managed plants release more toxins in Figure 2 because they have more toxins at their disposal. On average, absentee managed plants have on-site well over twice as many toxic chemicals ("core" and others) (36 trillion toxic pounds) than locally managed plants (14 trillion toxic pounds).

We also find additional support for a qualified version of the social capital model, which suggests that the emissions of absentee managed plants will vary according to the presence of associations, churches, and third places. The negative sign of the interaction term in model 2 indicates that absentee managed plants have significantly lower emissions when nested in counties with numerous associations. In more substantive terms, findings reveal that if there are no associations in a plant's county, the absentee effect is .186 ($b_x + (b_{xy})Z$); if 10 associations, the effect is $-.082$; if 50 associations, the effect is $-.271$; if 100 associations, the effect is $-.353$; and if 1000 associations, the absentee effect is $-.622$ (the sample range for associations is 1 to 3395). This suggests that only a small number of associations need to be in place before absentee managed plants begin to reduce their emissions.

We see in the remaining models that absentee managed plants also have significantly lower emissions when located in counties with numerous churches (model 3) and third places (model 4).¹⁰ Importantly, these interaction effects hold after controlling for a variety of regulatory, political, socio-demographic, and organizational factors that might explain them (refer to the Appendix, which confirms that the correlations between our key independent variables and other organizational and sociodemographic predictors are generally weak).¹¹ That all three measures of civic engagement reduce the emissions of absentee managed plants speaks to how social connectedness in a variety of institutional forms benefits communities' physical environments (Putnam 1993). In sum, findings in both Tables 2 and 3 support the prediction that absentee managed plants pollute less when embedded in civically engaged communities.¹²

Conclusion

Our goal in this article was to advance our understanding of the environmental degradation caused by different organizational forms. Toward that end, we analyzed the effects of absentee management on chemical plants' environmental performance using the EPA's 2000 Toxics Release Inventory. Findings confirm the suspicion of critics of globalization that absentee managed plants emit greater amounts of toxins. However, results also indicate this is largely because absentee managed plants process substantially more chemicals. In fact, when

TABLE 2: Random Effects Model of the Impact of Absentee Management and other Factors on Log Emissions (Core Chemicals)

	1	2	3	4
Industrial inorganic chemicals	-.039 ^a (.401) ^b	-.038 (.406)	-.030 (.410)	-.032 (.407)
Plastics	.090 (.386)	.096 (.392)	.103 (.395)	.098 (.392)
Drugs	-.382 (.539)	-.367 (.547)	-.362 (.552)	-.361 (.548)
Soaps and detergents	-1.283+ (.452)	-1.278+ (.459)	-1.281+ (.463)	-1.276+ (.460)
Paints	.078 (.372)	.072 (.378)	.078 (.381)	.078 (.378)
Industrial organic chemicals	.127 (.357)	.132 (.362)	.131 (.365)	.131 (.363)
Agricultural chemicals	-.588 (.546)	-.581 (.554)	-.592 (.559)	-.587 (.555)
Environmental expenditures	-10.101 (18.549)	-10.610 (18.729)	-10.316 (18.886)	-10.649 (18.769)
Percent voted	-.358 (2.708)	-.820 (2.769)	-.690 (2.790)	-.751 (2.773)
Percent poor	3.915 (3.643)	3.876 (3.700)	3.813 (3.730)	3.899 (3.705)
Percent black	.163 (1.252)	.097 (1.272)	.116 (1.283)	.105 (1.274)
Percent Hispanic	-.338 (1.571)	-.579 (1.064)	-.516 (1.617)	-.558 (1.608)
Log chemicals on-site	.576** (.026)	.577** (.027)	.577** (.027)	.577** (.027)

TABLE 2: Random Effects Model of the Impact of Absentee Management and other Factors on Log Emissions (Core Chemicals)

	1	2	3	4
Log firm size	.079* (.046)	.084* (.047)	.082* (.046)	.083* (.045)
Log plant size	.380** (.102)	.366** (.104)	.371** (.105)	.368** (.104)
Log associations	.111 (.281)	.223 (.296)	.138 (.289)	.142 (.287)
Log churches	.256 (.391)	.217 (.398)	.315 (.403)	.222 (.398)
Log third places	-.512 (.411)	-.521 (.417)	-.523 (.421)	-.449 (.422)
Absentee managed plant	.023 (.031)	.567 (.712)	.848 (1.134)	.767 (.954)
Absentee managed plant × Log associations		-.190* (.106)		
Absentee managed plant × Log churches			-.215* (.129)	
Absentee managed plant × Log third places				-.181* (.108)
Constant	.989 (1.726)	.912 (1.752)	.761 (1.771)	.810 (1.756)
N	1736	1736	1736	1736
R ²	.640	.651	.649	.650

^a Unstandardized regression coefficient^b Standard error* $p < .05$ (one-tailed test) ** $p < .01$ (one-tailed test) † $p < .05$ (two-tailed test)

we take into account the amount of chemicals that plants have on-site and other factors that influence facilities' emissions, we discover that the environmental performance of absentee managed plants is no worse than that of other plants. Whether plants with distant headquarters emit more chemicals largely depends on the presence of local institutions that facilitate civic engagement. When embedded in communities with more associations,

TABLE 3: Random Effects Model of the Impact of Absentee Management and other Factors on Log Emissions (Expanded List of Chemicals)

	1	2	3	4
Industrial inorganic chemicals	.238 ^a (.196) ^b	.242 (.195)	.244 (.196)	.245 (.195)
Plastics	.246 (.192)	.256 (.191)	.259 (.192)	.257 (.191)
Drugs	-.181 (.265)	-.174 (.266)	-.171 (.265)	-.171 (.266)
Soaps and detergents	-1.125 [†] (.230)	-1.117 [†] (.230)	-1.119 [†] (.230)	-1.116 [†] (.231)
Paints	.325 (.188)	.324 (.188)	.327 (.187)	.327 (.188)
Industrial organic chemicals	.278 (.178)	.279 (.179)	.277 (.179)	.278 (.179)
Agricultural chemicals	-.181 (.241)	-.174 (.239)	-.187 (.240)	-.179 (.240)
Environmental expenditures	-5.777 (9.264)	-5.837 (9.259)	-5.739 (9.260)	-6.042 (9.263)
Percent voted	-1.038 (1.312)	-1.306 (1.320)	-1.255 (1.319)	-1.264 (1.320)
Percent poor	3.924* (1.770)	3.843* (1.770)	3.800* (1.771)	3.855* (1.770)
Percent black	.047 (.607)	.042 (.607)	.019 (.606)	.016 (.607)
Percent Hispanic	-.833 (.761)	-.939 (.762)	-.916 (.762)	-.926 (.763)
Log chemicals on-site	.599** (.012)	.600** (.013)	.599** (.013)	.600** (.012)
Log firm size	.090** (.034)	.092** (.034)	.090** (.033)	.091** (.035)
Log plant size	.361** (.049)	.353** (.049)	.355** (.049)	.356** (.049)
Log associations	-.074 (.137)	-.002 (.142)	-.056 (.139)	-.054 (.138)

TABLE 3: Random Effects Model of the Impact of Absentee Management and other Factors on Log Emissions (Expanded List of Chemicals) (Cont'd)

	1	2	3	4
Log churches	.192 (.191)	.170 (.190)	.239 (.191)	.173 (.190)
Log third places	-.264 (.199)	-.273 (.199)	-.274 (.198)	-.227 (.200)
Absentee managed plant	.037 (.147)	.186 (.336)	.467 (.532)	.307 (.448)
Absentee managed plant × log associations		-.117* (.063)		
Absentee managed plant × log churches			-.153* (.091)	
Absentee managed plant × log third places				-.112* (.066)
Constant	1.097 (.909)	1.022 (.906)	.917 (.907)	.971 (.906)
N	1859	1859	1859	1859
R ²	.656	.667	.666	.665

^a Unstandardized regression coefficient^b Standard error* $p < .05$ (one-tailed test) ** $p < .01$ (one-tailed test) + $p < .05$ (two-tailed test)

churches, and third places, absentee managed plants emit significantly fewer toxins.

Our findings are by no means the definitive word on absentee management and its interaction with community structures. Our analysis, for example, says nothing about the economic/environmental tradeoffs local communities sometimes make when deciding whether to recruit absentee managed plants. We have only considered absentee management as it manifests itself within the U.S. and therefore cannot say how absentee managed chemical plants might impact the environment in poorer nations. We also cannot conclude from this analysis that the racial and ethnic composition of neighborhoods is irrelevant to the emissions of absentee managed plants. Absentee management may interact with race and ethnicity in very significant and complicated ways that cannot be captured by our research design.¹³

In addition, we do not test (and thus cannot speak directly to) the mechanisms involved in the civic engagement of pollution. Hence, like with other studies on civil society (e.g., Tolbert et al. 1998), one can interpret the effects of civic engagement indicators in more than one way. In our case, it could be that certain local institutions (associations, churches, and third places) decrease the emissions of absentee managed plants because they instill in them a greater sense of *loyalty* to their social and physical surroundings. It may be that these institutions give citizens more opportunity to *voice* their grievances. Or absentee managed plants with high emission levels may tend to *exit* or avoid civically engaged communities (Hirshman 1972).¹⁴ Until more detailed data become available, we have no way of determining which of these possibilities is more true.

These caveats notwithstanding, our study makes several significant contributions. First, its empirical analysis greatly improves on past studies by environmental and organizational sociologists that merely *speculate* about the pollution effects of absentee management. By combining EPA data on facilities' emissions with information on their host communities, we have empirically demonstrated for the first time that the spatial properties of plants have important environmental consequences and the local conditions under which this is especially true. Our study should also sensitize researchers to the need to study organizations where they most immediately impact the environment — the facility level.

Second, our findings inform work on globalization and the spatialization of capital. Prior research has noted how capital mobility can create new forms of locational concentration (Sassen 1991) or "sticky spaces in slippery space" (Markusen 1996). Our study compliments these studies by suggesting how local institutions help root absentee managed facilities in place and minimize their environmental destruction. Likewise, our research resonates with recent theorizing about the spatialization of the U.S. economy (Brady & Wallace 2000; Grant 1994) and the "spatial decentralization" of production (Romo & Schwartz 1995). But whereas this body of work stresses how footloose employers have severed their postwar accord with workers and citizens, our study suggests that a new accord may be possible that is grounded in social capital. This does not imply that a move toward a less capable and involved national government is required for civic engagement to thrive, as conservatives have suggested. Nor does it mean that translocal agents (e.g., NGOs, social movements, political parties) will not play a role in creating livable places (see Evans 1997; Putnam 1993). Rather, our results suggest that in the present global period, viable compromises between employers and workers/citizens might still be constructed at the local level. In light of the recent concerns raised about the relevance and efficacy of civic engagement (Portes 1998; Skocpol 1996:25), this is promising news for communities within the U.S.

Finally, and perhaps most importantly, our study demonstrates that if scholars are to study the impact organizations have on the environment (Perrow 1997), they must consider not simply the characteristics of businesses but those of other organizations with which businesses interact. As research on structural embeddedness and civil society suggests, communities are also strong organizations and how they cultivate the problem solving capacity of their citizens can strongly influence the behavior of external organizations like absentee managed plants. While our study cannot say whether more amicable or contentious strategies work best with absentee managers, it speaks to the more fundamental point that communities function as problem solving places. Indeed, although today's global economy is dominated by mobile employers, industry rarely is all-powerful. Communities possess organizational resources that can be activated to limit the destruction caused by businesses, including those with the least attachment to place.

Notes

1. Emissions, which are reported in pounds by the EPA, are weighted here by their toxicity (see Grant, Jones & Bergesen 2002 for details on toxicity weights).
2. In the context of this study, "out-of-state" is not meant as an indicator of globalization, but absentee management.
3. Unlike many other pollutants, which are subject to strict safety standards, the Environmental Protection Agency only requires manufacturers to report their toxic releases, leaving it up to local communities to act on that information as they see fit.
4. Examining emissions at the firm level would also introduce several complications, since firms may own plants in several industries with very different eco-organizational properties.
5. We explored the possibility of examining changes in emissions between 1990 and 2000, but several factors discouraged us from doing so. In particular, because of changes in reporting requirements and the fact that hundreds of new toxins have been added to the TRI list of chemicals since 1990, the facilities included in the 1990 and 2000 Toxics Release Inventory are often not the same. Indeed, a plant that processes the same chemical and in the same amount in these two years, may be required to report information on emissions for just one of these years. Importantly, we did replicate our 2000 analysis with 1990 data using the core list of chemicals and found the results to be basically the same. Hence, although the chemical plants included in the 1990 and 2000 Toxics Release Inventory may differ, the pattern of relationships between emissions and other factors appear robust across the two time points.
6. Grant et al.'s (2002) analysis of 1990 data tested the effect of branch plants in general and therefore did not isolate the pollution behavior of branches with out-of-state headquarters. By distinguishing absentee managed plants from others, we are able to test the thesis advanced by critics of globalization and capital migration that the *spatial* characteristics of plants have important environmental consequences.

7. A related study examines the emission rates of foreign owned plants in the U.S. (Grant & Jones 2004). It, however, focuses on a small subset of all absentee managed plants and with 1990 data that excludes roughly half of the industrial toxins now tracked by the EPA. Nor does it address the key question of this article, which is whether the environmental performance of absentee managed plants varies by the local civic cultures in which they are embedded. Hence, it examines the effects of absentee management in a very preliminary fashion.

8. The sources of these indicators are the Encyclopedia of Associations 2000 (Gale Research Corp. 2000), Census of Churches (Association of Statisticians of American Religious Bodies 2002), and the County Business Patterns (U.S. Bureau of the Census 2002).

9. We also considered the possibility that past environmental fines might influence emissions but discovered that because less than .005% of plants had ever been penalized, this factor could not be included in our models without creating severe problems of multi-collinearity.

10. In substantive terms, findings suggest that if there are no churches in a plant's county, the absentee effect is $.467 (b_x + (b_{xy})Z)$; if 10 churches, the effect is .115; if 50 churches, the effect is -.131; if 100 churches, the effect is -.238; and if 1000 churches, the absentee effect is -.590 (the sample range for churches is 2 to 4044). Results indicate that if there are no third places in a plant's county, the absentee effect is $.307 (b_x + (b_{xy})Z)$; if 10 third places, the effect is .049; if 50 third places, the effect is -.130; if 100 third places, the effect is -.209; and if 1000 third places, the absentee effect is -.467 (the sample range for third places is 0 to 12773).

11. Importantly, Tolbert et al. (1998) suggest that their indicators of civic engagement probably underestimate the importance of local institutions that are older and have especially deep roots in community.

12. We experimented with other specifications of the dependent variable such as expressing emissions as a fraction of all chemicals on-site ($\log[\text{emissions/chemicals on-site}]$) and discovered that the results mirrored those for log emissions.

13. For example, if one were to estimate simultaneously the determinants of emissions, the siting of absentee-owned plants, and housing segregation (Hefland & Peyton 1999; see also Downey 2003), it might be found that race and ethnicity are significant predictors of emissions. However, the type of longitudinal data needed for such a simultaneous equation are unavailable or limited.

14. Although, to our knowledge, nowhere in the literature on industrial location has it been suggested or shown that civic engagement actually influences the siting of chemical facilities.

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APPENDIX: Correlations Between Key Independent Variables and Other Organizational and Sociodemographic Predictors

	Absentee Managed Plant	Log Associations	Log Churches	Log Third Places
Environmental expenditures	-.05	.07	.01	.03
Percent voted	.02	.08	-.12	-.01
Percent poor	.11	-.01	.10	.04
Percent black	.08	.13	.14	.16
Percent Hispanic	-.09	.36	.41	.41
Log chemicals on-site	.21	-.13	-.09	-.11
Log firm size	.57	-.09	-.09	-.10
Log plant size	.13	-.04	-.04	-.03

Cross-national Differences in the Expansion of Science, 1970–1990*

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Abstract

Why has science expanded more in some nations rather than others? The few studies addressing this issue have attributed variation in science to differences in economic development and religion. This article discusses additional explanations, including the impact of domestic political structure, colonialism, and world-system dependency. Also, developing a neo-institutional line of research, I argue that scientific institutions spread to non-Western nations via international organizations (e.g., the United Nations Educational, Scientific, and Cultural Organization), which encouraged the widespread adoption of taken-for-granted governmental policies. Cross-sectional and panel regression models of national science infrastructure in the contemporary period are used to evaluate theories. Results show that domestic economic development is associated with the expansion of science, consistent with previous research. Results also find that science expands faster in nations linked to international organizations of the “world polity”, consistent with neo-institutional theory. Finally, Protestantism and a history of British and French colonialism appear to have had an impact in the past but do not explain growth of science from 1970 to 1990. Other factors have little effect on the expansion of science.

The global expansion of science has been both rapid and dramatic. In the early nineteenth century, Western science was practiced mainly in Europe and some of its current or former colonies. The phrase “Western science,” however, is no longer apt. The activities and infrastructures of that scientific tradition can now be found throughout the world. For instance, employment data collected by the United Nations Education, Science, and Cultural Organization (UNESCO) show that credentialed scientists are present in just about every country, colony,

** The article benefited from advice and comments from John W. Meyer, Francisco O. Ramirez, Ann Hironaka, and members of the Comparative Workshop at Stanford University. Direct correspondence to Evan Schofer, Department of Sociology, University of Minnesota, 909 Social Sciences, 267 19th Avenue South, Minneapolis, MN 55455. E-mail: schofer@soc.umn.edu.*

and territory in the world — even in extremely poor countries with little industry or technology (UNESCO 1995). Research institutions, science professional associations, and governmental science ministries are similarly widespread (Sachs 1990; Jang 2000). In 1950 almost no countries had ministries of science, but the number rose to around twenty in 1970 and to more than seventy by 1990 (Jang 2000). Moreover, by 1990, more than half of all nations devoted at least 0.5% of gross domestic product (GDP) to science, and 30% spent more than 1% of GDP on science (UNESCO 1995).¹ Finally, scientists from most parts of the world contribute, albeit unequally, to elite scientific journals (Institute for Scientific Information 1999).²

It is also important to realize that the “science” that has expanded worldwide is fairly uniform in character (Drori et al. 2003:196-8). Government and corporate investment mainly supports the Western/global form of science, rather than alternatives. To be sure, many societies possess “indigenous” sciences and knowledge traditions, or reactionary movements such as “creation science”. And, some of these alternatives have attained notable success (e.g., Chinese medicine). Nevertheless, the bulk of resources have accrued to a fairly standardized global (initially Western) form of science.

The question “why does science expand?” bears on a number of important sociological questions. Science represents an important form of rationalization (Weber 1978), which has the potential to shape economic and social activity. For instance, science directly affects economic growth (Schofer et al. 2000), democratization (Drori 1997; Ezrahi 1990), political engagement (Drori 1997), and social movements such as the environmental movement (Frank, Hironaka & Schofer 2000). It is important, therefore, to understand national variation in this highly consequential social institution.

Despite its sociological import, the global expansion of science has received little scrutiny, in large part because there is already a widely accepted account of the process. It is taken for granted that science is useful, and grows as social actors rationally invest in science as a means to pursuing various goals. This idea that science is mainly an instrumental “tool for social actors” has been termed the *instrumentalist* view (Schofer, Ramirez & Meyer 2000). Policymakers (and many scholars) tacitly or actively endorse this view — and thus bemoan global inequality in science, rather than contemplating why science expands on a global scale. Yet, prior research on the expansion of science finds ambiguous support for the instrumentalist view. For instance, Merton’s classic study links the early growth of science to the cultural worldview held by certain Protestant sects — not to the instrumental needs of governments or firms (Merton 1970 [1938]). Historians of the period draw similar conclusions — military and industrial applications did not spur early science (Kuhn 1977; Hall 1983, 1994). Recent studies of science and the economy offer mixed findings as well: science

is not always tied to instrumental economic ends (Schofer, Ramirez & Meyer 2000; Shenhav & Kamens 1991). Thus, additional explanations are needed.

I consider a broad range of explanations for the expansion of science. Instrumentalist assumptions about science have led to a focus on economic development and industrialism as a source of science (e.g., Cole & Phelan 1999). Classic work in the sociology of science has also focused on religious culture or on the institutional and political context necessary for the growth of the scientific profession (Merton 1970[1938]; Ben David 1990). Others look to colonialism and economic interdependence as factors that promulgate modern science. Finally, a recent alternative to the instrumentalist view comes from neo-institutional researchers, who shift attention toward the international sphere (see Drori et al. 2003). Rather than viewing national science as principally driven by domestic factors, neo-institutionalists emphasize the broader social and cultural environment that shapes national policy and behavior. Nations embedded in global pro-science discourses and culture increasingly adopt a fairly standardized “global model” of science, irrespective of local circumstances or needs.

This paper adds to the literature in three ways: First, and most important, I offer a systematic test of many explanations of the expansion of science. Most prior studies are either not systematic — often based on only one historical case — or address only a limited set of arguments. The empirical analyses, below, are substantially more extensive than prior studies.

Second, previous cross-national quantitative studies look at *scientific productivity* (i.e., new “knowledge”), measured in terms of a nation’s contribution to major scientific journals (Cole & Phelan 1999; Frame, Narin & Carpenter 1977) or solely at science policy (Finnemore 1996; Jang 2000). In contrast, I examine the institution of science broadly: research, but also applied science, science training, the scientific profession, and so on. By using measures of scientific organization, personnel, and productivity, this article speaks to the broader issue of the expansion of science *as an institution* — not just the growth of scientific knowledge or science policy.

Third, this paper offers longitudinal analyses, whereas prior research on scientific productivity has been cross-sectional (Cole & Phelan 1999; Frame, Narin & Carpenter 1977). Cross-sectional analyses are useful in that they identify the correlates of a nation’s scientific infrastructure — and such models are presented below to be consistent with prior studies — but they leave ambiguity about causality. Longitudinal models, such as panel regression, support stronger conclusions regarding the causes of the *expansion* of science.

Theories and hypotheses explaining expansion of Western science are discussed below — many of which have never been examined using quantitative data. Predictions are then tested with cross-national statistical analyses in the contemporary period.

Explanations for the Expansion of Science

DOMESTIC ECONOMIC DEVELOPMENT/MODERNIZATION

Instrumentalist assumptions about the utility of science have generated an emphasis on “development” and “industrialization” as the source of modern science. First proposed by functionalists, it is commonly argued that science arises in conjunction with societal development and modernization (Bernal 1939; Price 1986). Development, industrialization, and increased societal complexity are thought to create a functional need for scientific and technical advances, and also provide the resources required for science to flourish.

Variants of the development/modernization explanation point to various specific mechanisms to account for the expansion of science, but the overall predictions are similar. Economists emphasize the role of labor force changes and monetary incentives. Modernization, it is argued, creates increasing demand for technical innovation — and thus for skilled scientists and engineers. Demand produces high salaries, which in turn encourage individuals to choose science as a profession, leading to growth of science. Functionalist sociologists, on the other hand, tend to emphasize mechanisms such as the growth of supporting institutions (e.g., mass education, university systems, professional groups), which accompany modernization. Supporting institutions, it is thought, provide a supply of educated people and form the organizational and normative structure necessary for science to grow and flourish within a society (Ben-David 1990, 1971).

The empirical implication is simple: science infrastructures in a given society should correspond to society’s level of economic/industrial development.

Development Hypothesis: Developed/industrialized countries should have larger scientific infrastructures than less-developed countries.

This hypothesis has been supported in previous cross-sectional studies of scientific productivity (Cole and Phelan 1999).

DOMESTIC POLITICS AND DECENTRALIZATION

Local political contexts are also thought to affect the growth of science. For instance, political decentralization has been identified as an important prerequisite for the growth of science in Europe. Ben-David (1971) and others have argued that science must have autonomy from the state in order to flourish, and that autonomy is most abundant in politically decentralized societies, such as the U.S. or Renaissance Italy. Similar claims have been made regarding the expansion of higher education: decentralization provides avenues for increased participation and growth (Rubinson 1986). And Wuthnow (1980) makes the parallel argument at the international level — that the decentralized character of Europe aided the early growth of science in the West. To be fair,

however, one should note that science also thrived in a number of centralized regimes, such as absolutist France (McCann 1978; McClellan 1985). A systematic study is needed to determine if this argument is generalizable.

Along similar lines, it has been argued that political freedoms are necessary for the growth of science. Totalitarianism, for example, is thought to curtail the freedom of scientists, thus inhibiting the development of science (Josephson 1996). For example, Soviet science may have been impeded by strictures that prevented the free exchange of ideas among scientists. Also, totalitarian ideological pressures can distort science and prevent advancement, as in the case of Lysenkoism.

Thus, the following hypotheses are suggested:

Political Hypothesis 1: Science infrastructure will expand more within politically decentralized countries compared to politically centralized countries.

Political Hypothesis 2: Science infrastructure will expand less within totalitarian countries compared to nontotalitarian countries.

DOMESTIC RELIGIOUS CULTURE

By far the most famous explanation of this type is the “Merton Thesis”, which asserts that the cultural worldviews of certain Protestant sects disposed individuals to pursue scientific careers in seventeenth century England (Merton [1938] 1970). Merton’s explanation emphasized the individual level: Protestant individuals would tend to choose scientific careers. However, Merton and others also applied the general argument to the societal level, arguing more generally that the cultural understandings of Protestantism permeated societies, affecting even those who were not especially religious (Abraham [1983] 1990:238-9; Ben-David 1990:249; Merton [1938] 1990:112). This leads to the claim that *predominantly* Puritan or Protestant societies would expand science more than societies with other dominant religions (See Cohen 1990).

Subsequent scholars have expanded on this line of inquiry, comparing and contrasting major religious groups or “civilizations” in terms of their propensity to encourage (or limit) the institutionalization or autonomy of science. Needham (1969), in his comparative study of Europe and China, extended Merton’s line of argument to all Judeo-Christian religions — not just certain Protestants. He argued that the Judeo-Christian tradition incorporates the notion of a “lawgiver god,” which provided the basis for rationalistic pursuit of knowledge and subsequently the development of Western science (Needham 1969). Huff (1993) in his fascinating comparison of China, Islam, and Europe offers additional commentary on science in Islamic societies. Specifically, he argues that the character of intellectual life (rooted in a more conservative form of legal and religious tradition) and the lower degree of scientific au-

tonomy (with respect to religious institutions) impeded the institutionalization and expansion of science in Islamic societies.

These arguments lead to a series of hypotheses:

Religion Hypothesis 1: Science infrastructure will expand more within nations in which Protestantism is the dominant religion.

Religion Hypothesis 2: Science infrastructure will expand more within nations in which a Judeo-Christian religion is the dominant religion.

Religion Hypothesis 3: Science infrastructure will expand less within nations in which Islam is the dominant religion.

The arguments discussed up to this point emphasize *domestic* factors affecting the expansion of science. It is also possible, however, to see national-level scientific growth as the product the influence of, or domination by, Western nations or transnational institutions. I consider several such arguments.

WORLD-SYSTEM/ECONOMIC DEPENDENCY

World-systems scholars and 'radical' sociologists of science have focused on the importance of global economic relations (e.g., Cooper 1973; Sardar 1988). Concerned that science constituted a form of Western hegemony, radical scholars of the 1970s endeavored to show how the growth of Western science in the non-West was intimately tied to (and helped perpetuate) economic domination. On one hand, Western economic and colonial expansion was facilitated by research conducted in the non-West, on topics ranging from tropical medicine to research on the refining of rubber and sugar cane. On the other hand, as Western economic powers expanded industrial production within non-Western nations, they brought new technologies and created demand for a skilled labor force. Thus, economic dependency resulted in the growth of industrial science infrastructures within non-Western colonies and nations. This literature offers the following hypothesis:³

Economic Dependency Hypothesis: Science infrastructure will expand more within nations that are economically dependent on the West, compared to nations without such dependence.

Another interesting point made by these scholars is that the science infrastructure produced out of Western dependency might be differently organized compared to science that developed internally to a society, as it had in the West. In particular, 'dependent' science in developing countries might be organized in terms of topics and institutions that do not address local concerns or needs. In other words, domination might lead to expanded science in the non-West, but it may not benefit local populations.

COLONIALISM AND SCIENCE: TWO ARGUMENTS

Basalla (1967) highlights the importance of European exploration and colonialism for the spread of science to the non-West. He argues that colonization brought scientific activity around the world and often led to the formation of local scientific institutions. Other scholars emphasize that science was an important tool of colonial domination itself (Reingold and Rothenberg 1987; Sardar 1988; Storey 1996). Research on tropical diseases and tropical agricultural products was needed to effectively colonize many non-Western regions and develop profitable commodity production. Likewise, governance and exploitation involved applied scientific activities: mapping efforts to aid administration, geological surveys to facilitate mining, and so on. In sum, practical imperatives brought science to many colonies (Pyenson 1985). This suggests the straightforward hypothesis that colonialism encouraged science:

Colonialism Hypothesis 1: Science infrastructure will expand more within nations that had a history of colonial domination by Western powers, compared to nations that were never colonized.

However, the impact of colonialism may not be so straightforward or generalizable. In some instances, colonialism is associated with *unusually low* levels of scientific infrastructure (Behrman 1980). Indeed, many colonies were hardly more than trade outposts, decimated by colonial war and exploitation. I argue that the impact of colonialism on science is conditional on whether the colonial power encouraged the transplantation of Western culture and institutions or focused solely on the extraction of colonial resources. Colonial powers varied widely in this respect. Britain and France were most attentive to institution building within their empires — creating fairly elaborate colonial administrations, educational systems, legal systems, etc. (Fieldhouse 1966, 1981). In contrast, powers such as Spain, Portugal, and Belgium eschewed such practices, creating spare colonial administrations that mainly engaged in resource extraction and left little behind in the form of tangible institutions (Fieldhouse 1981). In sum, colonial powers had very different impacts on science in their colonies.⁴ I will briefly contrast some of the differences.

In French colonies, science was fostered directly through structures of colonial governance. A culture of science was deeply embedded in the highly rationalistic French state (Crosland 1992; McClellan 1992). This emphasis on science accompanied French colonial governments as they organized engineering projects, developed colonial civil service requirements, regulated medical and other professions, and so on (McClellan 1992). Scientific societies in the French empire even received direct support from the crown. McClellan (1992) writes, “Almost without exception, support and patronage for science in Saint Domingue [now Haiti, and formerly one of the wealthiest French colonies] came from one or another of the bureaucratic tentacles of the pre-

revolutionary French colonial government.” Similar processes occurred in other French colonies, such as Mauritius, the Antilles, etc. (McClellan 1992). The result of French colonialism was the founding of scientific societies, the creation of systems of education, and the training of colonial subjects in the European scientific tradition. In the majority of cases, colonial scientific infrastructure survived decolonization, to be built upon by the newly independent nations (cf. Sachs 1990 for relevant data).⁵ Moreover, the newly independent colonies often modeled their new governments on the French administrations, perpetuating the French emphasis on science.

Britain also fostered scientific institutions and activity in its colonies, but the state played a less direct role (McClellan 1985). Private citizens founded dozens of scientific societies and even universities both in the settler colonies (see Schofer 2003) and elsewhere throughout the Commonwealth (Sachs 1990). Created initially for and by interested expatriates, many scientific societies initially excluded native populations (Gupta 1979). Over time, however, indigenous people were increasingly incorporated and trained in Western science (Gupta 1979). Also, British policies and models of education and science education also flowed through colonial relations (Baber 1996; Gupta 1979). Missionaries and large numbers of British expatriates fostered schooling, which brought Western science with it. Even some of those involved in the economic exploitation took an interest in local education. For example, Gupta (1979) writes, “Charles Grand, a Director of the [British East India] Company, wrote a treatise ... where he made a plea for imparting modern education to Indians.” In addition, indigenous elites frequently attended higher education in Britain and became steeped in the pro-education/pro-science British culture. Indeed, British-educated Indians became some of the most fervent proselytizers of Western-style education and science. Gupta (1979) concludes, “The impact of Europe on India generated a genuine interest in Western literature, science, and rationalist culture.”

In sum, France and Britain infused many of their colonies not only with basic scientific and educational infrastructures, but also with a cultural world-view in which science was deeply valued. This resulted in widespread support for science in many colonial dependencies, particularly by foreign-educated nationals who became political leaders following independence.

However, not all colonial powers sought to develop local institutions and scientific and educational infrastructures (Ferreira 1974, Fieldhouse 1966, 1981). The Netherlands had explicit policies that prohibited higher education within certain colonies (Behrman 1980). Education of indigenous peoples was seen as a threat to colonial dominance — it could lead to organized revolt. Similarly, Portugal was considered to have done little to develop education in its colonies (Ferreira 1974). Japan provided even less support for science within its colonial system.

In sum, historical differences in imperial practices resulted in wide ranging impacts – from directly supporting science in colonies to actively discouraging it. This discussion leads to the following hypothesis:

Colonialism Hypothesis 2: Science infrastructure will expand more within countries that were colonized by France or Britain, compared to non-Western nations that were colonized by other imperial powers or were never colonized at all.

NEO-INSTITUTIONAL THEORY: WORLD SOCIETY AND INTERNATIONAL ORGANIZATIONS

Neo-institutional theory has developed an extensive line of research addressing the global spread of Western institutions and policies of various kinds (see Meyer et al. 1997 for a review). The core argument is that national societies are surrounded by and embedded in trans-national organizations, culture, and discourse, often referred to as “world society” or the “world polity” (Meyer 1987). This rich external environment strongly influences nation-state structure and behavior. For example, neo-institutional scholars have shown that nations do not devise education systems *de novo*, in response to local interests or demands. Rather, governments typically import educational policy, plans, and curricula wholesale, conforming to normative practices or recommendations of external advisors or organizations (Meyer et al. 1992). International organizations like the World Bank and UNESCO play a central role in shaping the policies adopted by non-Western nations. But it would be an oversimplification to view global diffusion as merely the result of coercion by the World Bank. Institutions and policies diffuse, in part, because they are highly valued and “taken-for-granted” in world culture (Meyer 1987).

This paper applies this general neo-institutional argument to explain the spread of Western science (see also Drori et al. 2003; Finnemore 1991; Jang 2000; Schofer 2003).⁶ Science, like education, is culturally valued among Western societies and taken for granted as an important social institution. Also, a number of international organizations (notably UNESCO) strongly espouse pro-science views and encourage the spread of science to non-Western nations.

How did science become so central to transnational institutions and so routinely incorporated into their policy prescriptions? Several factors were involved (see Finnemore 1996; Schofer 1999; Drori, Ramirez & Schofer 2003). The culture of Western science itself, with its strong vision of universality provided a key basis for early trans-national organizing, as did rapid professionalization (Merton 1973; Schofer 1999). But, a critical factor was the rise of the *instrumentalist* view. As early as Bacon, people imagined science as a means to “progress” and social betterment (Hall 1983). Yet, the twentieth century saw an unprecedented efflorescence of this worldview as a distinct cultural form, exemplified by the rise of “socially oriented science” (Schofer

1999) and the “science-for-development” vision among international organizations and development banks (Drori et al. 2003:102-3).

Faith in science was at a high point following World War II, evident in both the policies of Anglo/European nations and in the views articulated by the architects of the United Nations and related international organizations (Finnemore 1996). In sum, the *instrumentalist* view became dominant in world culture and discourse, and became institutionalized in the UN, UNESCO, and other international institutions. The Western powers that organized the United Nations and most international associations had great optimism that science would bring peace and economic prosperity — and by the 1960s, there was increasing consensus that science could solve the problems of Third World poverty and underdevelopment (Drori, Ramirez & Schofer 2003; Finnemore 1996). In practice, science had not produced the means for saving the developing world from poverty, but there was great optimism that such dreams would soon be realized — if only developing countries (and industrialized societies alike) would invest in science.

What was formerly known as “Western science” was taken up by international organizations and aggressively promoted as a *global model* for organizing science everywhere.⁷ Starting in the late 1960s, the UN and other organizations mobilized to encourage the expansion of science in nations throughout the world. These efforts culminated in the UN proclaiming the 1980s as the “UN Decade of Science for Development” (Drori 2000). A tremendous outpouring of pro-science policy discourse legitimated and provided the rationales for national-level investment in science. Science was portrayed as the panacea that would provide countless benefits, especially to underdeveloped nations. The World Bank and development consultants began to advise nations to augment investment in science as a strategy to develop, while UNESCO and dozens of international scientific associations began sending out project workers to aid the creation of national science policy and infrastructures. UNESCO even began to offer plans for setting up national science policy and ministries, and sent consultants to hasten the process in many countries (Finnemore 1991). In short, international organizations increasingly focused their efforts on encouraging the expansion of national science infrastructure. Finnemore writes:

UNESCO began [in the 1950s] to focus its attention on helping states organize, direct and expand their own domestic science establishments, and its preferred method of doing this was to help states create a new state agency to take care of these tasks. (Finnemore 1991, p. 179)

International associations also organized conferences for representatives of developing nations that stressed the value of national science and proffered specific plans or blueprints that nations could follow to augment their national

science infrastructure (Hilton 1970; Weiner 1984). Numerous international non-governmental organizations pursued similar agendas (see Schofer 1999).

In sum, the neo-institutional perspective suggests that international organizations played a central role in affecting the expansion of science around the world. But, which nations were affected most? Following prior studies, I argue that the strength of international linkage matters: countries deeply enmeshed in the world polity are most likely to be influenced by it (Schofer and McEneaney 2003:61-2). For example, countries that interact with UNESCO, participate in international conferences, or are otherwise exposed to the culture and discourse of the world polity should be most likely to expand science infrastructure. In contrast, certain nations have resisted the ideologies and policy prescriptions of the international community and refused membership in many international organizations, effectively insulating themselves from “world society”. Examples such as North Korea or Iran come to mind. Other countries lack organizational connection to the international sphere due to internal turmoil, such as Sierra Leone and Mozambique. Whatever the cause, one would expect nations with few ties to international organizations should expand science more slowly, even controlling for other factors.

The actual mechanisms through which international organizations affect policy are multiple. On one hand, local elites gain resources and legitimation by conforming to the wishes of international organizations (Thomas et al. 1987). On the other hand, Western models of science-led development are cognitively dominant in the world (Chabbott 1999; Drori 1998). Supported by economists and other professional elites, the policy prescriptions emanating from the world polity are often accepted as truth — even in the absence of clear empirical evidence (see Schofer et al. 2000). Policymakers and governments in developing nations do not have the resources to develop their own systems of policy research that could provide alternate views.⁸ Without plausible policy alternatives, the advice conveyed by international organizations has great potential to influence governments of non-Western nations.

The preceding discussion suggests the following argument:

Neo-Institutional/International Organizations Hypothesis: Nations that are linked to pro-science international organizations of the world polity will expand science infrastructure more than nations without such linkages.

Finally, neo-institutional theory offers some commentary on the organizational characteristics of scientific institutions in non-Western nations. The exogenous source of scientific policy models may lead to science that is relatively disconnected with local circumstances (Shenhav and Kamens 1991; Drori et al. 2003:155-173). Governments, conforming to international pressures, often develop highly elaborate state structures and policies, but lack the resources to properly implement them. As a result, science infrastructures in developing nations are often incoherently organized or “decoupled” (Drori et

al. 2003:ch 7; Meyer et al. 1997). The result is that scientific infrastructures expand within a given country, but not necessarily in well organized or tightly integrated (“functional”) systems that are likely to benefit local needs or aid local development.

National Science Infrastructure: Statistical Analyses, 1970-1990

METHODS

Descriptive statistics and other summary information are used to clarify the relative size of national science infrastructures, as well as differential patterns of scientific expansion between 1970 and 1990. Hypotheses, developed above, are examined using regression models of the expansion of Western scientific infrastructure for a large sample of countries. To be consistent with prior studies, I begin with cross-sectional analyses, which replicate (and extend) prior studies (Cole & Phelan 1999). Next, I conduct panel regression analyses, which provide a more direct test of hypotheses regarding the expansion of science. Whereas cross-sectional analyses identify the correlates of having a large national science infrastructure, panel analyses identify the factors associated with *expansion* of science over time.

Analyses focus on the period since 1970 due to data limitations: most science indicators are not available earlier. Cross sectional analyses are based on data from around 1970.⁹ Panel regression analyses model national science infrastructure in 1990 as a function of independent variables measured in 1970, including the “lagged” dependent variable — a country’s initial level of science in 1970. By examining the size of science controlling for the initial level, these panel models identify the factors associated with expansion of science. A twenty-year lag is chosen to allow sufficient time to observe change in science indicators, and is consistent with studies of related variables (see Meyer and Hannan 1979).

MEASURES

The dependent variable of interest is the expansion of national scientific infrastructure, broadly defined. The literature on science indicators identifies several facets of science: scientific “inputs,” such as government funding and personnel; science “outputs” such as research and patents; science “organization,” which includes government policy organizations; and the institutional expansion of the scientific profession (Morita-Lou 1985).

To construct a broad based measure of a nation’s scientific infrastructure, I begin with nine different national science indicators. All are national-level variables, measured as near to 1970 as possible: Scientific publications per

TABLE 1: Exploratory Factor Analysis: Factor Loadings for Nine Indicators of National Science Infrastructure, 1970

	Factor Loading
Scientific papers published p/cap (log)	.856
Scientific citations p/cap (log)	.866
Tertiary natural science students (per age grp)	.825
Tertiary engineering students (per age grp)	.604
Scientists and engineers in R&D per million pop (log)	.861
Domestic scientific organizations	.867
National memberships in the International Council of Scientific Unions (logged)	.826
Patents granted (logged)	.844
Student Math and Science Achievement Test Scores	.687
(N = 47)	
Notes: Only one underlying factor was identified, based on the criteria of an eigenvalue ≥ 1.0 .	

capita, logged (ISI 1973); Scientific citations per capita, logged (ISI 1973)¹⁰; tertiary natural science students (as percentage of age 20-24 population), logged (UNESCO 1975); tertiary engineering students (as percentage of age 20-24 population), logged (UNESCO 1975); number of scientists and engineers per million population, logged (UNESCO 1975); number of national scientific societies, logged (Sachs 1990); number national memberships in branches of the International Council of Scientific Unions, logged (ICSU 1970); student math and science achievement score (national average) (Hanushek & Kim 1995); and patents granted, logged (WIPO 1983). Descriptive statistics for these measures can be found in Appendix A.

A factor analysis of the nine science indicators identifies a single underlying factor that accounts for a large proportion of variance in these measures (factor loadings are shown in Table 1). This suggests that a broad-based index of national science infrastructure can be derived from these measures. Unfortunately, data on all nine measures are only available for 47 countries in 1970, reducing the usefulness of such an index. The sample can be increased substantially, however, by making an index based on those indicators that are highly correlated with the underlying factor *and* are available for a large number of cases. Thus, I constructed a "general" science measure based on three science measures that correlate highly with the 9-variable index:

Scientific publications(per capita), logged. Publications are perhaps the most common measure of new scientific research output. The variable is standardized to population size and logged to reduce skewness. Data is taken from the Science Citation Index (ISI 1973, 1993).

Tertiary natural science students (as a percentage of age 20–24 population), logged. The number of students at the college/university level in the area of natural science reflects a country's capacity to train new scientists and maintain a highly-skilled labor force (UNESCO 1975; 1992). The variable is divided by the relevant population age group and logged.

The number of domestic science organizations, logged. Domestic science organizations reflect the development of the scientific profession within a given nation. Merton's early work highlighted the importance of scientific organizations as a critical component of the institutionalization of science (Merton 1970 [1938]). Examples include the Royal Society of London, as well as the Geological Society of America, the Society of French Ichthyologists, and the Ecological Society of Nigeria. The variable is logged to reduce skewness.

These three measures were combined into a "science infrastructure index" by using factor analysis to estimate the underlying latent variable.¹¹ This 3-variable index correlates at .968 with the 9-variable science index in 1970 and is available for nearly 100 countries in both 1970 and 1990 (but since the case base does not fully overlap in 1970 and 1990, longitudinal analyses have an N of closer to 80).

Statistical models include independent variables that correspond to each hypothesis:

National development is measured by real Gross Domestic Product (GDP) per capita (logged), a measure of national economic activity (Summers and Heston 1991). Functionalist and modernization theories predict that more developed countries will have larger science infrastructures.

Political decentralization is measured using a three-point scale taken from the Polity III dataset (Jaggers & Gurr 1995). Nations scoring high on this variable have less centralized political systems, which are thought to encourage the expansion of science.

Totalitarianism is measured using a ten-point scale that reflects autocratic state practices, also taken from the Polity III dataset (Jaggers & Gurr 1995).

Protestantism is measured by a dummy variable coded 1 if Protestantism is the largest religion of a nation as percentage of total population (Barrett 1982). Merton and others predict that Protestant nations will exhibit more expanded scientific institutions than non-Protestant nations.

Judeo-Christian religion is a dummy variable, coded 1 for nations where a Judeo-Christian religion is dominant for the largest percentage of the population (Barrett 1982).

Islamic religion is a dummy variable, coded 1 for nations where Islam is dominant for the largest percentage of the population (Barrett 1982).

World-system economic dependency is measured by the most common method: foreign capital investment as a proportion of GDP, which reflects the

degree of foreign (Western) control over a nation's economy (World Bank 1992).

Colonization is measured by a dummy variable indicating whether a country was ever colonized (Henige 1970).

British/French colony is measured with a dummy variable that indicates nations with a history of British or French colonial rule (Henige 1970).

Linkages to "pro-science" international organizations are measured by an index of three linkage variables: (1) National membership in international science associations¹²; (2) the number of UNESCO and UN science (or science-for-development) projects that a nation participates in¹³; and (3) overall membership in international associations of all types (UNDP 1993; Union of International Association 1995). The measures were combined into an index by using factor analysis to estimate the underlying variable.¹⁴ Neo-institutional theory predicts that nations with a high density of international linkages will tend to expand their science infrastructure.

Descriptive statistics for all variables used in the analyses can be found in Appendix B.

Results

DESCRIPTIVE INFORMATION

I begin with a discussion of one measure — science publications — to give a sense of variation of national science infrastructure. In 1973, scientists within the U.S. generated on the order of 100,000 publications according to the Science Citation Index, several times the number produced in any other country (ISI 1973; See Frame, Narin & Carpenter 1977 for a general discussion). Britain followed with over 25,000 papers, while France and Japan produced around 15,000. At the other extreme, scientists in war-torn Mozambique produced no publications at all, while those in Malawi produced 21 (ISI 1973). The production of publications is extremely skewed. There are dozens of countries similar to Malawi, while only a very few approach the levels of scientific activity found in the U.S.

Simple descriptive statistics by region highlight the distribution of science around the globe. Table 2 contains the means and standard deviations of three science indicators by geographical region: scientific paper publications, tertiary science students, and domestic science professional organizations in 1970 and 1990 (sources listed above).¹⁵ Sharp regional stratification is evident in all three measures. It comes as no surprise that industrialized Western nations score highest on all science measures. For instance, the average number of science publications among industrialized Western nations is around 25,000 in 1990, while the next highest region is around 3,500 — a difference of more than

TABLE 2: Descriptive Statistics: Selected Science Indicators by Region

	Year	Scientific Publications			Tertiary Science Students		Science Organizations	
		1973	1990		1970	1990	1970	1990
Industrialized West	Mean	9,629	24,321		27,540	67,798	319.55	410.41
	SD	23,775	55,683		36,424	117,677	559.50	755.99
	N	21	20		21	21	22	22
Eastern Europe	Mean	3,923	2,197		9,778	24,650	64.30	77.10
	SD	7,545	1,848		6,479	48,178	96.83	127.43
	N	9	8		9	10	10	10
Central and South America	Mean	125	504		4,156	10,905	26.30	31.04
	SD	228	994		9,174	20,966	29.18	32.74
	N	23	23		21	20	23	23
Asia	Mean	1,187	3,699		10,853	92,381	33.55	41.05
	SD	3,677	11,239		13,284	217,396	68.67	72.02
	N	20	21		14	15	22	22
Middle East	Mean	239	666		3,497	13,743	7.71	11.00
	SD	671	1,685		4,275	18,129	15.91	18.00
	N	18	20		18	19	21	21
Africa	Mean	65	130		358	1,906	4.74	7.23
	SD	210	474		528	4,826	13.96	16.15
	N	37	42		35	39	43	43
World Total	Mean	2,116	4,568		8,314	29,109	66.54	84.82
	SD	10,337	23,092		18,954	94,839	246.34	328.55
	N	128	134		118	124	141	141

seven-fold. If one compares the industrialized West to Africa, the difference is over 100-fold. Regions fall roughly into the following order: The industrialized West is highest on all measures, followed by Eastern Europe, Asia, Latin American and the Middle East (which are close together), and finally Africa.

The means in Table 2 show rapid growth between 1970 and 1990. There is a large increase in the global averages: scientific papers double¹⁶, the number of science students at the tertiary level triples, and scientific organization grows by almost one-third. Moreover, this rapid growth can be observed in all regions of the world.¹⁷ In absolute terms, growth is greatest in the industrialized West, where, for instance, science publications grow by almost 15,000. However, when one looks at *rates of growth* (in proportion to a country's starting point), growth rates are highest in the non-West. For instance, tertiary science enrollment in Africa grows by a factor of five: countries had on average 358 students in 1970, compared to 1,906 students in 1990. In the same period, the number of tertiary science students skyrockets in Asia by nearly a factor of ten. In other words, while the *size* of science infrastructure is highly stratified by region, *growth rates* are high everywhere, but with substantial variation across region. Thus, we may expect somewhat different results when modeling a country's *level* of science in 1970 versus its *growth* in science over time.

Additional descriptive statistics broken down by religion, centralization, and totalitarianism can be found in Appendix C.¹⁸ In general, means differ in a manner consistent with theoretical predictions. For instance, countries that are high on totalitarianism average 763 publications in 1973, versus 2,974 for countries that score low. Likewise, Protestant countries have a mean of over seven thousand, whereas Islamic countries average around 71. Finally, Appendix C shows that politically decentralized countries score much higher on all measures than centralized countries, often by a factor of ten. However, standard deviations are very large in almost all instances, suggesting substantial variation within each subgroup. And, growth rates are high across almost all groups. Without fully specified models (with relevant control variables) it is premature to draw firm conclusions.

CROSS-SECTIONAL AND PANEL REGRESSION ANALYSES

Table 3 contains results of cross-sectional and panel regression models that include indicators for the domestic hypotheses regarding national development, politics, and religion. Results of the cross-sectional analysis, presented in the first column, are consistent with prior studies. Wealthy countries have large science infrastructures in 1970, as do Protestant nations. Economic development has a very large and highly significant coefficient. The standardized coefficient for economic development is .724, suggesting that wealth is an important correlate of science activity. The Protestantism dummy variable has a smaller effect that is always positive, though the significance

TABLE 3: OLS Regression Model Showing Effects of Domestic Variables on National Science Infrastructure

	Cross Section 1970	Panel 1970-1990
Science index, 1970	—	.816** (.057)
GDP per capita, logged, 1970	.789** (.089)	.164* (.066)
Political decentralization, 1970	.058 (.116)	.002 (.053)
Totalitarianism, 1970	-.023 (.024)	.006 (.011)
Protestant religious tradition	.361† (.188)	.030 (.090)
Judeo-Christian religious tradition	.096 (.243)	-.156 (.127)
Islamic religious tradition	.125 (.277)	-.115 (.142)
Constant	-6.47** (.755)	-1.232* (.544)
Adjusted R ²	.65	.93
N of countries	86	73

Note: Standard errors are in parentheses.

† $p < .10$ * $p < .05$ ** $p < .01$ (two tailed test)

fluctuates from model to model. Nevertheless, the result is suggestive of the Protestant “spur to science” described by Merton. Additional religious measures — the Judeo-Christian dummy and Islamic dummy — are not significant. Other religious traditions do not appear to affect the size of a nation’s science infrastructure.

Cross-sectional models also include a variety of national political and religious variables that are not addressed in prior studies. It has long been argued that domestic political structures affect the establishment of science. However, evidence does not provide strong support for this view. Model coefficients are in the direction predicted by the literature: political decentralization has a positive coefficient, while totalitarianism is negative. But, the effects are extremely small and are nowhere near statistical significance. Political regimes may affect science in other ways — such as biasing the content or bending science to the needs of a totalitarian regime — but they do not appear to affect the overall level of science infrastructure in a society.

TABLE 4: OLS Regression Model Showing Effects of Domestic and World-System Dependency Variables on National Science Infrastructure

	Cross Section 1970	Panel 1970–1990
Science index, 1970	—	.788** (.063)
GDP per capita, logged, 1970	.682** (.106)	.124† (.071)
Political decentralization, 1970	.117 (.130)	.034 (.062)
Totalitarianism, 1970	-.036 (.024)	.015 (.012)
Protestant religious tradition	.264 (.196)	-.021 (.097)
Judeo-Christian religious tradition	.168 (.239)	-.116 (.134)
Islamic religious tradition	.211 (.284)	-.042 (.152)
Economic dependency	-.151 (1.27)	-.944 (.629)
Formerly colonized	-.412† (.233)	-.206† (.116)
European country	.217 (.316)	.125 (.149)
Constant	-5.40** (.874)	-.858 (.572)
Adjusted R ²	.72	.94
N of countries	70	59

Notes: Standard errors are in parentheses.

† $p < .10$ * $p < .05$ ** $p < .01$ (two tailed test)

The panel regression model in Table 3 tests hypotheses about *expansion* of science between 1970 and 1990. As one would expect in a panel model, the lagged dependent variable — the size of science infrastructure in 1970 — has a strong effect on the expansion of science by 1990. The lone substantive finding in the panel model is that GDP in 1970 predicts expansion of science between 1970 and 1990. Wealthy countries not only had more science to begin with, but also grew faster even controlling for their high starting point. Protestantism does not have a significant effect in panel models. While Protestantism may have affected the level of science infrastructure prior to 1970, it has no

measurable effect on growth from 1970 and 1990. Other domestic political and religious variables also fail to predict the expansion of science.

Table 4 adds a measure of economic dependency and a general measure of colonization. A "European power" dummy variable is also added in order that the omitted reference category for the colonization dummy variable correctly reflect uncolonized nations that are not Western colonial powers.

The cross-sectional model in Table 4 finds few additional effects. Economic dependency does not have a significant effect on the size of a nation's science infrastructure. The colonization dummy has a slight negative effect that is significant at the 0.10 level. However, the effect is in the opposite direction predicted by the historical literature. The common argument is that colonization was a mechanism by which science was transferred to (or imposed on) non-Western countries. However, it appears that former colonies have less science infrastructure compared to the reference group: non-Western nations that did not experience colonial domination, such as Thailand. The "Europe" dummy, included along with the colony variable, does not have a significant effect once GDP is included in the model. Finally, the Protestantism variable falls shy of statistical significance in this model, presumably due to the smaller sample size in Table 4 (which results from missing data on the dependency measure).

Panel analyses in Table 4 find a similar negative effect of colonization on the expansion of science. Science grew more slowly in societies that were previously colonized by Western Powers. The effect is not very large (or robust, as seen below), but falls within statistical significance at the 0.10 level. Again, the main predictor of science expansion is a nation's level of economic development, measured by GDP per capita.

Models in Table 5 include additional variables that reflect colonization by Britain and France, as well as organizational linkages to the world polity. Cross sectional analyses find positive and significant effects of both variables. Nations colonized by Britain or France possess higher levels of science infrastructure. This is consistent with historical research, which has shown that those imperial powers devoted significant resources to building educational and scientific institutions in some of their colonial territories.

In addition, cross sectional models show that international organizational linkages are associated with larger science infrastructures. The effect is very large and significant. In fact, international linkages have the largest effect on science of any variable in the model, with a standardized coefficient of .524. This surpasses the effect of GDP, which is .440 in this model. Countries that are most connected to the pro-science organizations of the world polity have larger scientific infrastructures than countries with fewer linkages. Finally, it should be noted that when the international linkage variable is included in the model, the coefficient of the previously colonized dummy becomes nonsignificant.

TABLE 5: OLS Regression Model Showing Effects of Domestic, World-System, Colonial, and World-Polity Organizational Linkage Variables on National Science Infrastructure

	Cross-section 1970		Panel 1970–90	
Science Index, 1970	—	—	.657** (.085)	.666** (.079)
GDP per capita, logged, 1970	.499** (.094)	.480** (.070)	.125† (.074)	.168** (.061)
Political decentralization, 1970	-.041 (.109)	—	.008 (.063)	—
Totalitarianism, 1970	-.020 (.020)	—	.012 (.012)	—
Protestant religious tradition	.174 (.166)	.322* (.130)	.035 (.100)	.086 (.089)
Judeo-Christian religious tradition	.020 (.210)	—	-.110 (.136)	—
Islamic religious tradition	-.184 (.239)	—	-.078 (.150)	—
Economic dependency, 1970	-.333 (1.036)	—	-.962 (.627)	—
Formerly colonized	-.013 (.224)	.007 (.182)	-.120 (.129)	-.119 (.109)
European country	.320 (.256)	.325 (.198)	.172 (.147)	-.013 (.121)
British/French colony	.289† (.147)	.312** (.116)	.044 (.100)	.098 (.082)
International organization linkages, 1970	.586** (.101)	.608** (.075)	.208* (.088)	.178* (.074)
Constant	-4.28** (.754)	-4.34** (.553)	-1.01 (.605)	-1.40** (.504)
Adjusted R ²	.82	.81	.94	.94
N of Countries	69	89	58	75

Notes: Standard errors are in parentheses.

† $p < .10$ * $p < .05$ ** $p < .01$ (two tailed test)

Panel models tell a slightly different story. Colonization by Britain and France does not affect growth in science between 1970 and 1990, implying that the effect occurred mainly before 1970. Britain and France may have given some countries a “leg up” in terms of building science infrastructure, but did not imbue those countries with characteristics that lead to continued rapid growth.

In panel analyses, the effect of international organizational linkages remains positive and significant. Other than GDP, international linkage is the only factor that is robustly associated with the expansion of science. The effect is quite large, with a standardized coefficient that is about the size of the GDP effect.¹⁹ The growth of science is importantly influenced by connection to “world society.” Again, this variable proves to be a better predictor than the “former colony” dummy, which loses significance in this model.

Table 5 also contains simplified cross-sectional and panel models that include only variables that were significant in prior analyses. Fewer cases are lost to missing data, and the omission of irrelevant variables provides additional degrees of freedom. Findings are unchanged, though some variables are more highly significant.

Discussion

There are many theories of the growth of science, but few are supported in analyses of the contemporary period. Four factors are robustly associated with the *size* of a nation’s science infrastructure in 1970: GDP, Protestantism, history of British or French colonial rule, and international organizational linkages to the world polity. Moreover, only two of these factors can account for *growth* in science from 1970 to 1990: GDP and international linkages.

Results suggest that the effects of Protestantism and British/French colonization are lingering historical effects. These variables have small but significant coefficients that appear only in cross-sectional analyses of 1970. Normally, one cannot draw causal inferences from cross-sectional models, but in this case it is unlikely that causality runs in the opposite direction. It is not plausible that high levels of science led to Protestantism or colonization by Britain and France (though the possibility of spuriousness remains). But these effects do not appear in panel models from 1970 to 1990, when the initial level of science infrastructure is controlled. The implication is that these variables had an impact in the past, but do not explain continuing expansion of science in the contemporary period.

The effect of British and French colonialism reflects an interesting mechanism that is consistent with the historical literature. Among colonial powers, Britain and France were most likely to impose Western educational and scientific institutions in their colonial territories. Sometimes this occurred through administrative attempts to control territories. In other cases, it reflected the practices of European settlers or was linked to progressive ideologies that education and science would “civilize” non-Western societies. It may also be the case that colonialism served as a form of cultural linkage, conveying the notion that science is a highly valued activity. However, more historical research is needed to discern the specific mechanisms.

The Protestantism effect can be seen as support for the Merton Thesis: the religious culture of Protestantism is conducive to scientific inquiry and the institutionalization of science. Of course, Protestantism is also highly correlated with British domination and the presence of British settlers – who may have simultaneously brought scientific institutions along with the Protestant religion.²⁰ Again, historical analysis is needed to clarify mechanisms.

The effect of GDP on science is rather unsurprising, especially in cross-sectional analyses. Virtually every comparative study of science — qualitative or quantitative — has observed that wealthy countries have large science infrastructures. However, it is noteworthy that GDP encourages expansion of science in *panel* analyses — something that had not been shown in prior studies. Panel regression addresses concerns raised in prior research that the effect is due to reverse causality, because some forms of science infrastructure increase economic growth (Schofer et al. 2000). Panel results provide convincing support for the notion that wealth encourages the expansion of science.

There are different possible interpretations of the GDP effect. One interpretation, suggested by functionalists in the 1960s — and echoed by current policymakers — is that science may grow in functional interdependence with industrial development. Consistent with the instrumentalist view, science may be more useful within industrial economies, and thus social investment in science should grow in lock step with development. Some forms of science infrastructure fits this view, such as training programs for R&D scientists or applied industrial research. However, some forms of science activity are far removed from industry and have more the character of voluntary consumption: e.g., astronomy, the search for life on Mars, paleontology, and so on (see Drori et al. 2003). Another possible interpretation is that the GDP effect might simply function as an enabling factor: science is expensive, and only wealthy countries can afford it on a large scale. In other words, industrial development may not provide the impetus to pursue science in any direct or functional sense, but rather provides surplus resources that support the practice of science — much as wealth supports consumptive activities such as art, sports, astrology, and so on. In the latter case, wealth is an enabling factor, but does not really explain why societies would wish to invest so heavily in science. Additional studies would be needed to determine which view best characterizes the organization of science in contemporary society.

International organization linkages to world society, indicated by linkages to UNESCO, international science associations, and general international associations, has a strong positive and significant effect on science in both panel and cross-sectional analyses. Nations with stronger ties to international organizations appear to adopt the pro-science policy prescriptions of those

organizations, leading to greater national scientific infrastructure. These results dispel the notion that the impetus to pursue science arises mainly due to local social processes. Science is a global institution, highly valued in a “world culture,” and is spread, sustained, and promulgated by organizations and actors in the international sphere.

Perhaps most surprising is the sheer size of the effect of international organizational linkages on the expansion of science. In standardized terms, the coefficient for international linkages is comparable to — and sometimes exceeds — the effect of GDP in cross-sectional and panel models. Previous scholars have remarked that GDP is the dominant predictor of science (Cole & Phelan 1999). The international organizations of the world polity represent another “master predictor” that accounts for a very large amount of cross-national variance.

Again, there is some ambiguity about mechanisms, suggesting the need for case-based research. On one hand, international organizational linkages to the world polity may indicate *coercive* isomorphism (see DiMaggio & Powell 1991), in which powerful actors such as the World Bank force nations to accept particular national policies. On the other hand, international linkages serve as networks that sustain flows of cognitive models, scripts, and culture. Prior studies seem more consistent with the latter view. International organizations typically lack the resources to coerce nations, but rather tend to convey standardized policy prescriptions that are adopted by bureaucracies of developing nations (e.g., Finnemore 1996). However, further research is needed on this issue.

Although this article focused mainly on international organizations (which is a form of international linkage that can easily be measured), Western science may also spread through other kinds of linkages: policy plans adopted by non-Western states, educational curricula, development projects, foreign student exchanges, international conferences, multinational corporation activities, and popular media, to name a few. Further research would aid in determining which linkages matter most, thus clarifying how Western institutions become rooted worldwide.

Other explanatory variables failed to predict the size or growth of science infrastructure. Neither totalitarianism nor political decentralization has a significant effect in cross-sectional or panel models. These findings are plausible, given the distribution of science in the modern world. Science investment has expanded rapidly in most parts of the world, despite great variation in political structures. Both centralized nations like France and decentralized nations like the United States have large science infrastructures. Totalitarian states, such as the former Soviet Union, invested heavily in science just as democratic nations do. No obvious pattern of political structure emerges. Decentralization may have been necessary for the initial growth of science in Europe, as described

by scholars such as Ben-David (1971) and Wuthnow (1980). But, the contemporary proliferation of Western science does not appear to depend on national decentralization.

Likewise, religion is not a major factor in the contemporary period. The effect of Protestantism is small and only appears in cross-sectional analyses. Moreover, countries dominated by either the Judeo-Christian tradition or Islam are not significantly different compared to other faiths. Religion may have been linked to the institutionalization of science in prior centuries (Huff 1993; Merton 1970[1938]; Needham 1969). But, by 1970 the effect of religion is quite attenuated.

Finally, direct forms of economic and political domination do not affect the spread of science. Measures of economic dependency and general colonization have little effect. In retrospect, this makes sense. Powerful economic or military exploitation, by itself, is highly destructive and thus would not generally produce a flowering of local scientific institutions. Science expanded only in cases where colonial powers (or expatriates) paid substantial attention to developing local educational and scientific institutions (also see Schofer 2003). This insight serves as a useful corrective to the case-based historical literature, which focuses mainly on cases where colonial science expanded a great deal. By selecting on the dependent variable, the literature gives an impression of a stronger link between colonialism and science than is in fact the case.

Concluding Thoughts

This paper advances the literature by examining a large number of theoretical explanations for the expansion of science. Interestingly, most sociological theories do not successfully explain cross-national differences in growth of science from 1970 to 1990. Should this be interpreted as a failure of prior theorists? Not at all. Most theories were developed to account for the early institutionalization and expansion of science in the seventeenth, eighteenth, and nineteenth centuries, rather than current expansion. Nevertheless, it is important to realize that different processes are dominant in the late twentieth century. Whereas religion, political context, and colonialism may have been important in the past, economic development and the influence of the world polity are most consequential in the contemporary period.

Contemporary science is a creature of the modern economy and the global world polity. On one hand it is intimately linked to the wealth of a country, as part of industrial capitalism and/or as a form of consumption that only wealthy states can pursue on a large scale. On the other hand, science has become taken for granted as a standard national policy that governments pursue. This notion is sustained by pro-science international organizations that influence the policy

and behavior of nations around the world in a manner consistent with the predictions of neo-institutional theorists.

Given that the spread of science is strongly influenced by international organizations and linkages, present trends of science expansion are likely to continue in the future. International organizations are more numerous and influential than ever before (Boli & Thomas 1999). And, science is increasingly prominent in the policy advice, economic development plans, environmental protection efforts, and other projects that such organizations sponsor (Schofer 1999). Counter-trends have been fairly weak. There has been some skepticism of late regarding science and technology among international policymakers. For example, development professionals appear to have lost their fascination for dams, large technological projects, and immediate “technological fixes” for the problems facing developing countries. However, such sentiment has focused mainly on specific technologies (e.g., dams), rather than reflecting a broad-based anti-science agenda among international development organizations and banks. In short, organizations in the international sphere continue to espouse science as a solution to major social problems — such as AIDS, sustainable development, environmental issues, and so on. As long as science remains high on the agenda in the world polity and dominant in international discourse, present trends of expansion are likely to continue.

Notes

1. Based on a sample of nearly 100 nations. This data may slightly overestimate actual science expenditures because nonreporting nations often spend little on science.
2. The greater part of the world’s scientific activity remains concentrated in a handful of nations in Europe, North America, and Asia.
3. Note: dependency theorists have also argued the converse: that dependence constrains the expansion of science. However, this argument is less common in the literature. In any event, both possibilities will be examined in the quantitative models presented below.
4. To further complicate matters, colonial powers also varied in the treatment of different colonies within their empires. For example, Britain invested more in building institutions within the crown colonies. However, to keep the argument simple (in order to facilitate the quantitative analysis, below), I focus mainly on the differences between colonial powers.
5. Saint Domingue serves as a counter-example. Decades of violence following independence wiped out much of the science infrastructure brought by the French.
6. Note: Other neo-institutional research on science has generally looked at different questions. Shenhav and Kamens (1991) and Schofer et al. (2000) take neo-institutional processes into account to help explain the impact of science on national economies. Drori

- (1998, 2000) examines the growth of trans-national pro-science policy, organizations, and discourse. Jang (2000) focuses on science policy, rather than science itself.
7. I thank an anonymous reviewer for this suggestion. Also see Drori 1997.
 8. Also, years of imperialism weakened or wiped out the indigenous cultures and knowledge systems in colonial dependencies that might have provided alternatives to Western policy plans for science-led development.
 9. Cross-sectional analyses of later periods (e.g., 1990) yield similar results.
 10. Publication and citation data are not available in 1970. Data from 1973 is used instead. This should not seriously bias results, as the year-to-year correlation of these variables is very high. Thus, the 1973 measure is a close approximation of the variable in 1970.
 11. Other methods of index construction (e.g., adding z-scored variables) yielded similar results.
 12. Note: National membership in international nongovernmental science associations is counted based on memberships held by citizens of that nation. Any organization with one or more member from a given nation is counted once. Thus, the variable reflects the total number of different international organizations that citizens hold membership in. Data is coded from the Yearbook of International Associations (UIA 1995).
 13. This variable is interacted with a nonindustrialized nation dummy variable because project investment is targeted only at those nations.
 14. Again, the method of creating the index did not affect results. An index based on the sum of z-scored variables produced similar findings.
 15. These variables were chosen because they form the basis for the "science index" analyzed below. Other science variables exhibit similar patterns across region. Note: Variables in Table 1 are not logged or standardized by population, which makes the means in Table 1 easier to interpret (and more intuitive). In analyses, below, variables *are* transformed as described in the Data section.
 16. Some growth is due to change in the number of journals included in the Science Citation Index, which may or may not rise in exact proportion to the increase in number of scholarly journals between 1970 and 1990. Thus, it is unclear whether this increase is greater or less than the actual increase in scholarly publications in the world. Nevertheless, the measure does a good job of assessing cross-national variation in participation.
 17. The one exception is that Eastern Europe — high to begin with — declines in article publications between 1970 and 1990.
 18. To ease presentation, the 10-point totalitarianism variable was collapsed into "low" and "high" totalitarianism for the purposes of the Appendix. Also, the decentralization measure was collapsed into a dichotomy.
 19. In panel models, the beta for GDP is .155 and the beta for international linkages is 152.

20 The British/French colony variable attempts to control for this — but the measure is imperfect and does not differentiate between colonies with many settlers (which in the British case are very likely to be Protestant) and those with few. Thus, the control variable does not eliminate the possibility of a spurious effect of Protestantism.

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APPENDIX A: Descriptive Statistics for Science Infrastructure Variables Used in Factor Analysis

	Mean	S.D.	Min.	Max.	N
Paper publications per cap (log) 1973	.059	.13	.00	.67	111
Citations per capita (log) 1973	.246	.53	.00	2.32	113
Natural science students per 20-24 age group (log) 1970	1.30	1.02	.00	3.40	125
Engineering students per 20-24 age group (log)	1.45	1.31	.00	4.07	125
Scientists and engineers in R&D (log) 1970	5.03	1.72	1.10	8.59	115
National Science Professional Organizations (log) 1970	1.83	1.87	.00	7.78	176
National memberships in the ICSU (log) 1970	.97	1.12	.00	2.89	176
Patents (log) 1970	6.19	2.41	1.10	11.07	90
Student science and math achievement Index	45.20	13.22	18.26	72.13	90

APPENDIX B: Descriptive Statistics for Variables Used in Analyses

	Mean	S.D.	Min.	Max.	N
Science Infrastructure Index 1970	.00	1.00	-1.18	2.72	94
Science Infrastructure Index 1990	.00	1.00	-1.45	2.43	93
GDP per capita (log) 1970	8.08	.91	6.43	9.94	110
Centralization	1.24	.62	1.00	3.00	122
Totalitarianism	4.42	3.66	0	10	110
Protestantism	.17	.38	.00	1.00	149
Judeo-Christian Religion	.59	.49	.00	1.00	149
Islamic religion	.23	.43	.00	1.00	149
Economic dependency	.0073	.0052	-.36	.18	83
Former colony	.66	.47	.00	1.00	149
European country	.19	.40	.00	1.00	149
Former British or French Colony	.45	.50	.00	1.00	149
International organizational Linkages 1970	.125	.956	-1.94	2.01	134

APPENDIX C: Descriptive Statistics: Selected Science Indicators by Religion, Totalitarianism, and Centralization

		Scientific Publications		Tertiary Science Students		Science Organizations	
		1973	1990	1970	1990	1970	1990
Protestant	Mean	7193	7007	14886	32243	89.82	115.24
	S.D.	22169	36793	30783	102421	386	517.40
	N	25	49	21	25	51	51
Judeo-Christian	Mean	997	2215	7819	18360	47	59.28
	S.D.	2419	6112	17946	40627	107	138.72
	N	55	84	59	59	85	85
Islamic	Mean	71.28	185	3426	10175	4.29	7.45
	S.D.	152	353	5392	16080	8.24	11.56
	N	32	41	31	35	42	42
Other	Mean	2059	2767	6701	65457	19.37	22.86
	S.D.	5867	9812	12191	189163	56.59	60.26
	N	23	28	17	21	35	35
		Scientific Publications		Tertiary Science Students		Science Organizations	
Year		1973	1990	1970	1990	1970	1990
High Totalitarianism	Mean	763	1032	5634	17402	17.02	21.22
	S.D.	3305	2353	9142	31669	27.72	31.54
	N	53	50	46	47	54	54
Low Totalitarianism	Mean	2974	3703	8962	30131	53.55	68.45
	S.D.	12664	21731	21791	107674	233.41	311.24
	N	82	152	82	93	159	159
		Scientific Publications		Tertiary Students		Science Organizations	
Year		1973	1990	1970	1990	1970	1990
Decentralized	Mean	9198	20871	21934	106016	231.47	315.00
	S.D.	27016	62353	30138	229672	568.55	796.74
	N	16	16	16	17	17	17
Centralized	Mean	1152	1508	5742	14779	28.06	34.05
	S.D.	3965	6580	15084	35006	121.59	144.23
	N	119	186	112	123	196	196

Ideology, Social Threat, and the Death Sentence: Capital Sentences across Time and Space*

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Abstract

Capital punishment is the most severe criminal penalty, yet we know little about the factors that produce jurisdictional differences in the use of the death sentence. Political explanations emphasize conservative values and the strength of more conservative political parties. Threat accounts suggest that this sentence will be more likely in jurisdictions with larger minority populations. After controlling for many explanations using two-equation count models, the results show that larger numbers of death sentences are probable in states with greater membership in conservative churches and in states with higher violent crime rates. The findings suggest that political conservatism, a stronger Republican party, and racial threat explain whether a state ever used the death sentence, but these hypotheses do not account for the number of death sentences beyond one. By highlighting the explanatory power of public ideologies, these findings support political explanations for the harshest criminal punishment.

Is there a connection between the political climate and the propensity to sentence offenders to death? Probably no other current legal sanction in any advanced society is as harsh, yet there is little research on the environmental conditions that influence trial court decisions about capital punishment. In part because public officials determine the criminal codes and decide sentences, many theorists view punishment as a political phenomenon (Chambliss 1994; Foucault 1977; Garland 1990; Savelsberg 1994), yet the political determinants of death sentences have not been studied. The literature has focused instead on the ascriptive characteristics of individual offenders and

** We thank Lisa Keister and especially Jim Moody for helpful comments on a prior draft. All data used in this study and the unreported analyses mentioned in the text are available on request. Direct correspondence to David Jacobs, Department of Sociology, 300 Bricker Hall, 190 North Oval Mall, Ohio State University, Columbus, OH 43210-1353. E-mail: jacobs.184@sociology.osu.edu.*

their victims. Studies of the individual factors that lead to death sentences have been extremely useful, but the influence of political and social divisions has not been given sufficient attention. Jurisdictions differ sharply in their willingness to impose this extreme punishment, so contextual factors in trial court environments should affect shifts in the number of death sentences over time and across jurisdictions.

While we examine additional contextual accounts, this study focuses on political and religious beliefs and on racial threat. Because it is plausible that core public values about crime and justice shape how often the most severe criminal sentence is used, we study the effects of political and religious conservatism on these sentences. Stone (1987:250) claims that the criminal law is an instrument used by dominant groups to protect their own and other people's lives by the use of selective terror. If he is right, the most extreme sentence should become increasingly probable after racial or ethnic divisions threaten majority group dominance or after the political party that represents majority group interests becomes stronger.

There are good theoretical reasons to study such issues. Social scientists who follow Hobbes and view state coercion as the most important requirement for order often suggest that a fundamental (but not the only) purpose of the state agencies that specialize in social control is to serve the prosperous who benefit most from order. In this view, the law is primarily used to control the potentially violent groups who threaten privileged interests (Chambliss 1964; Garland 1990). If harsh criminal sanctions become more likely after such potential threats to order expand, the most severe sentence should be increasingly used where hierarchical social divisions enhance the probability of these threats. The divisive racial conflicts throughout U.S. history and the resulting claims that the U.S. criminal justice system is not color-blind suggest that racial divisions contribute to the number of death sentences. We therefore examine the relationship between such threats and likelihood of this sentence.

The court based studies of the treatment of individual offenders that dominate the sentencing literature have focused on the effects of offender race. But almost all of these studies looked at sentences in only a few courts, so findings about this and other controversial issues remain mixed and sharply debated (Chiricos & Crawford 1995; Kleck 1981; Walker, Spohn & DeLone 1996; Zatz 1987). We hope to overcome this sampling difficulty and the resulting problems with potentially unrepresentative findings by analyzing the determinants of the number of death sentences in *all* U.S. jurisdictions over a twenty year period.

Many court based sentencing studies treat the courts as organizations, but the literature on complex organizations stresses environmental effects because this focus has repeatedly provided the most powerful accounts for organizational behavior. It is highly unlikely that court officials would not be influenced by their environment. For this reason, many scholars suggest that

the explanatory power of court contexts should be given greater attention (Carp & Stidham 1996; Hughes 1995; Jacob 1995). Given the intense interest in capital punishment, it is surprising that we know so little about the external social and political conditions that make some jurisdictions far more likely than others to impose this sentence.

We begin to fill these gaps with a pooled design that takes into account both cross-sectional contrasts between jurisdictions and shifts in the number of death sentences over time. We use zero-inflated negative binomial count estimation to discover the factors that make death sentences more likely. This procedure separately estimates the potentially distinct determinants that produce *no* death sentences as well as the factors that lead to more numerous death sentences. Single factor explanations are suspect, so we examine many hypotheses, but this means the next section cannot focus on just a few explanations.

Theory

We assess three political perspectives. Public values should be influential when such an extreme punishment is at issue. Because conservatives stress deterrence, incapacitation, and retribution, successful demands for death sentences ought to be likely where conservative values are strongest. The strength of political or religious conservatism should be especially influential in a populist democracy like the U.S. (Garland 2001; Savelsberg 1994; Windlesham 1998), particularly when an intensely moral outcome like a death sentence must be decided. Another common explanation for state behavior focuses on external forces. According to this contextual perspective, state officials are embedded in an environment in which some groups are more powerful than others. Hypotheses about minority-majority group relations therefore should help account for the number of death sentences. A third approach that has become popular in studies of politics suggests that the parochial interests of state officials contribute to political outcomes (Evans, Rueschemeyer & Skocpol 1984). Inasmuch as office holders and candidates can act strategically and choose issues that increase their political support at the expense of their rivals, we discuss the theoretical basis for studying such partisan tactics.¹

POLITICAL AND RELIGIOUS IDEOLOGIES

One political account for the number of death sentences emphasizes values. Both Savelsberg (1994) and Garland (2001) provide compelling theoretical arguments about how public images of crime shaped recent changes in criminal punishments. Salvetsberg contrasts ideologies in Germany and the U.S. He uses these divergences to explain the sharp U.S. growth in imprisonments

compared to an almost constant trend in Germany. Garland develops arguments about what he calls the culture of crime control and uses this perspective to explain expansions in punishment in both the U.S. and the United Kingdom. Yet neither theorist tests their claims about the effects of public ideologies about crime and punishment.

Assertions about the influence of public values on criminal sanctions are especially plausible in the U.S. as political arrangements make this nation an exceptionally direct democracy. U.S. voters control many social policies that are decided by bureaucratic experts in other advanced democracies. The resulting populist decision making should make public values critical when a profoundly moral outcome like the death sentence is at issue (Zimring & Hawkins 1986). Research on judicial behavior in political science shows that the courts are influenced by shifts in public values (Carp & Stidham 1996). Intensely felt political and religious convictions about the causes of crime and the most appropriate punishments therefore should provide powerful explanations for trial court decisions about executions.

Beliefs about personal responsibility provide a foundation for views about the morality and effectiveness of capital punishment. Conservatives see criminals as unfettered individuals whose reprehensible choices make them accountable for their venal acts (Lacey 1988). John Major, the last Conservative prime minister, expressed this view forcefully by claiming that "Crime is a decision, not a disease" (quoted by Garland 2001 p. 191), so the harms due to criminal punishment should be equated to the harm produced by the offense. In this view, justice consists of an fair trade: an offender's injurious act ought to be matched by another equally injurious act by the state (Garland 1990).

If most criminal behavior is freely chosen rather than the result of environmental circumstances that remove law abiding alternatives, increases in the expected costs of law breaking should be both morally justifiable and an effective way to reduce crime. Many conservatives therefore see general deterrence as the most appropriate remedy for violent crime. Molnar (1976) presents the normative basis for this view when he writes, "if those who deserve it are not appropriately penalized, then the so-far guiltless tend to fall, by a kind of social gravitational pull, to lower levels of discipline and civilization" (47). Although conservatives acknowledge that the deterrent effects of punishment will not curb all violent crimes, the irreversibility of the death penalty will stop the most depraved offenders from committing additional harms. Conservatives use such claims about deterrence and incapacitation as the basis for their repeated (but empirically dubious) assertions that a few executions will protect many innocent victims from brutal crime.²

Liberals, however, see crime as the result of unjust social arrangements (Garland 2001; Thorne 1990). Because they believe that street criminals are victims of noxious environmental conditions like poverty or racism, citizens

on the political left are skeptical about both the social benefits and the moral justification for severe criminal penalties. Their view that criminal behavior is the result of faulty socialization produced by inequitable social conditions (Taylor, Walton, & Young 1973) makes liberals more optimistic than conservatives about efforts to rehabilitate offenders (Garland 2001). Citizens on the political left therefore view reforms that are designed to eliminate destructive social environments (Taylor, Walton, & Young 1973) and therapeutic measures applied to offenders (Garland 2001) as the most effective and just remedies for violent crime.

Surveys repeatedly show that respondents with liberal views are less likely to support severe punishments. In comparison to conservatives, liberal respondents are far more hostile to the death penalty (Brillon 1988; Lakoff 1996; Langworthy & Whitehead 1986; Taylor, Scheppele & Stinchcombe 1979; Van Dijk & Steinmetz 1988). Inasmuch as public demands for the death penalty should be most intense where conservative rather than liberal values predominate, *death sentences should be least likely where liberal rather than conservative political convictions are strongest because prosecutors, judges, and juries should be less likely to support this sentence in such jurisdictions.*

Religious Fundamentalism

Another set of public values should help account for jurisdictional differences in the number of death sentences. Historical research shows that religion had a powerful influence on the historical evolution of criminal punishments (Erickson 1966; Ignatieff 1978; McGowen 1995). Religious conservatives see human nature as innately depraved (Thorne 1990) and fixed, so they are not convinced by liberal claims that predatory street criminals can be reformed. The most pernicious offenders therefore must be executed to ensure that they no longer can harm the innocent. Because they follow their political counterparts and place little weight on environmental conditions that diminish culpability, religious conservatives stress retribution. Studies show that fundamentalist Protestant values are associated with greater support for severe punishments like the death penalty (Curry 1996; Grasmick et al. 1992; Grasmick & McGill 1994). According to this retaliatory outlook, the state is obligated to make those who have made these deliberate choices to commit grievous social harms pay in kind for their pernicious acts (Garland 1990).

Where fundamentalist religious convictions predominate, we can expect increased public support for a harsh punishment like the death penalty. Although it is not likely, perhaps prosecutors and judges are unaffected by the intense public views about criminal punishment in more religiously conservative jurisdictions. Yet it is even less probable that such jurisdictions would select lenient court officials or indulgent juries. Successful public

demands that those who are guilty of the most heinous offenses must receive the death sentence therefore should be common where membership in conservative fundamentalist Protestant churches is most prevalent. These claims suggest that strong fundamentalist values should increase the probability that prosecutors will ask for the death penalty and judges and juries will support these requests. Hence: *jurisdictions with the most substantial membership in fundamentalist Protestant churches should be more likely to impose the death sentence.*

The last two hypotheses may seem self-evident, but religious or political conservatism could affect public attitudes about punishment without influencing a political outcome like sentencing. Miller and Stokes (1963) find that public opinion explains how elected representatives vote on some political issues but not others. Research on the legalization of the death penalty shows that fundamentalist values do not explain this outcome (Jacobs & Carmichael 2002:125), but Jacobs and Carmichael (2001) find a relationship between membership in fundamentalist churches and state imprisonment rates. Such inconsistencies suggest that the effects of conservative political or religious views on harsh punishments require additional study.

THREAT EFFECTS: MINORITY PRESENCE, UNEMPLOYMENT, AND VIOLENT CRIME

Sharp disputes about race once were, and perhaps still are, the most important feature of U.S. politics. Racial or ethnic divisions may explain the number of death sentences because the threat posed by a large racial or ethnic underclass can be expected to produce criminal sanctions that are more severe. Theorists claim that dominant racial groups act politically when they are threatened by larger minority populations (Blalock 1967; Blumer 1958; Key 1949). Ethnocentric majority group beliefs and majority assumptions that minorities are interlopers accentuate majority presumptions that they should have exclusive claims over important rights and resources (Bobo & Hutchings 1996). Majority ethnic or racial groups therefore contest minority efforts to obtain equitable shares of these resources. One recurrent tactic involves the criminal justice system. Majority groups often try to maintain their advantaged position with demands for repressive measures that are most likely to target minorities.

Negative views about African Americans are more common where African Americans are most numerous (Fossett & Kiecolt 1989; Taylor 1998), and such views evidently lead to enhanced demands for severe criminal measures. With the crime rates held constant, Quillian and Pager (2001) find positive relationships between African American presence and fear of crime. Studies of criminal justice outcomes suggest that the threat posed by a larger racial or ethnic underclass leads to enhanced pressure on political authorities to make

greater efforts to control street crime. Cities with larger minority populations, for example, have more police officers (Liska, Lawrence & Benson 1981; Jackson 1989) and arrest rates are higher in these cities (Liska, Chamblin & Reed 1984). Expansions in nonwhite presence produce increased spending on prisons and jails (Jacobs & Helms 1999), and states with larger minority populations have higher imprisonment rates (Jacobs & Carmichael 2001).

These findings imply that whites will successfully demand increasingly harsh criminal punishments when they are threatened by more substantial minority populations. Such results and the added finding that white prejudice against blacks is closely associated with white support for capital punishment (Barkan & Cohn 1994) lead to a hypothesis that *more death sentences can be expected in jurisdictions with larger African American populations*. In some states Hispanics occupy a minority niche similar to that of blacks. For the same reasons, we can expect that *the number of death sentences will be greater in jurisdictions with the largest Hispanic populations*.

Blalock (1967:128) provides the theoretical basis for a nonlinear relationship by claiming that as minority populations grow, there should be an increasingly positive relationship between minority population size and repressive outcomes particularly when a dichotomous decision like the shift between using or not using the death sentence is at issue. Findings show that most associations between the minority population size and white racial attitudes depart from linearity (Taylor 1998). Jackson (1989) reports nonlinear relationships between minority presence and expenditures on the police. Studies of lynchings also support Blalock's expectations about increasing slopes and discontinuous relationships (Corzine, Creech & Corzine 1983; Reed 1972). Additional findings show that African American presence explains the legality of the death penalty but only after this presence has gone past a particular threshold (Jacobs & Carmichael 2002). Resistance to a severe punishment like the death sentence should increase after those who seek such a controversial goal accumulate almost enough influence to get their way. Modeling this relationship as a discontinuous threshold therefore may be empirically productive.

In this study, we use one equation to model the number of death sentences above one and another to model the complete absence of death sentences. The death sentence cannot be imposed where capital punishment is illegal, so political decisions about this dichotomous legal outcome will be an important (but not the only) determinant of the results of the secondary equations that predict the complete absence of death sentences. The prior discussion about the plausibility of discontinuous relationships suggests that noncontinuous threshold effects should be assessed in the secondary equations that predict the absence of death sentences. In some (but not all) of the analyses we

therefore follow Blalock (1967) and the empirical literature and test for discontinuous relationships between minority threat and no death sentences.

Economic Threat—Unemployment

Most of the prior studies about jurisdictional differences in punishments were motivated by neo-Marxist arguments (Chambliss 1964; Rusche & Kirchheimer 1939) that imprisonment and other punishments are used to control the excess supply of labor in capitalist economies. Many researchers investigated these claims by examining the relationship between unemployment rates and imprisonments (Chiricos & Delone 1992), but the results could be more convincing. Because the relationships between joblessness and incarceration rates have not been strong, investigators have used words like “elusive” (Melossi 1989), or “contradictory” (Michalowski & Pearson 1990) to describe these findings.

In their review of the literature, Chiricos and Delone (1992) find that only 60% of the 147 reported relationships between unemployment and imprisonment were positive and statistically significant. It nevertheless is reasonable to think that higher unemployment rates may enhance demands for harsh punitive measures and produce more death sentences. The prosperous may view the unemployed as a threat to a social order (Chambliss 1964) and pressure authorities for harsh punishments after unemployment becomes more severe. Joblessness also may lead to enhanced resentments against underclass street criminals. *We therefore expect that the number of death sentences will be more substantial in jurisdictions with higher unemployment rates.*

Threats Due to Violent Crime

Death sentences ought to be more likely in areas where violent crime is most pronounced, as the public should feel threatened where these crimes are most numerous. Despite only moderate increases in the crime rates, fear of crime (Skogan 1990) and resentments against underclass lifestyles that are viewed as promoting crime (Edsal & Edsal 1991) expanded during the latter part of the period we analyze. According to Beckett (1997), the media’s focus on this problem increased in the latter periods in our sample. A longitudinal analysis of the General Social Surveys from 1972 to 1976 shows that growth in the well-reported violent crime rates produced greater public support for the death penalty (Rankin 1979). Because a primary justification for capital punishment is its purported deterrent effect on those who are tempted to use violence to commit pernicious acts (Molnar 1976), *jurisdictions with higher violent crime rates should be more likely to use the death sentence after the number of capital offenses (murders) has been held constant* because court actors will be influenced by public demands resulting from these threats.

These threat explanations probably have a substantial political component. If threats due to racial divisions, joblessness, or violent crime explain the number of death sentences, these links are likely to go through intervening but unmeasured political processes that determine the severity of the criminal codes, the likelihood that prosecutors will ask for the death sentence, and the probability that judges or juries will honor these requests.

THE INSTITUTIONAL POLITICAL CLIMATE: PARTISAN STRATEGIES

Additional explanations focus on strategic political behavior (Evans, Rueschemeyer, & Skocpol 1984). Politicians often use anticrime appeals to enhance their election prospects. Although lower middle-class and working-class voters do not benefit as much as the affluent from Republican economic policies (Blank & Blinder 1986; Hibbs 1987), Republican candidates can increase their support from these groups by campaigning on law and order (Beckett 1997; Chambliss 1994; Edsal & Edsal 1991) and by repeatedly emphasizing their support for the death penalty (Pierce & Radelet 1990-1991).

These anticrime political strategies both capitalize on and probably enhance (Beckett 1997) public indignation against the underclass. Republicans have deliberately used law-and-order campaign appeals to furtively appeal to voters who resent minorities. Officials who served in the Nixon administration admit that they purposely employed such tactics to gain anti minority votes in the 1968 and 1972 presidential elections (Beckett 1997). Law-and-order campaign appeals help Republicans attract less affluent voters who are more likely to live in or near to areas where the risk of violent crime is greater. By campaigning against street crime and other social problems that are easy to blame on a racially or ethnically distinct underclass, Republicans often have captured enough votes from fearful or resentful lower-middle or working-class whites to achieve the majorities required to win elections (Beckett 1997; Edsal & Edsal 1991).

After they won, Republicans did not forget their promises. Republican officials have repeatedly attempted to make criminal punishments more severe. Many studies find relationships between Republican political strength and punitive criminal justice outcomes (Jacobs & Carmichael 2001; Jacobs & Helms 1996, 1997, 1999). Capital punishment is more likely to be legal when Republicans control the state legislature (Jacobs & Carmichael 2002), while historical accounts show that Republicans have used this issue repeatedly in campaigns for state governor (Constanzo 1997; Davey 1998). Hence: *death sentences should be more likely in jurisdictions with a Republican governor or with greater Republican strength in the legislature due to the sensitizing effects of Republican rhetoric about law and order* (Beckett 1997) and because the success of

such law-and-order candidates indicates greater public support for a severe punishment like the death penalty.

Methods

RESEARCH DESIGN AND THE DEPENDENT VARIABLE

Death sentences are extremely unusual, so no existing court data sets furnish the information necessary to study the number of these sentences without biases introduced by unrepresentative samples.³ Aggregate statistics provide the only available information that can provide a general picture of the death sentence process. If the results are to be representative, we have no choice about units. The smallest possible aggregation level we can use is the U.S. states.⁴ And state decisions matter. These governments set jury size and this outcome alters the probability of a unanimous verdict. States decide if prosecutors are held to rules of evidence during the separate sentencing phase in capital trials (see note 1) and these governments determine the aggravating or mitigating factors juries must consider in this final part of a capital trial. All these factors combine to make a state level analysis appropriate.

We employ explanatory variables measured in 1970, 1980, and 1990 to account for the number of death sentences in the states in the periods 1971-72, 1981-82, and 1991-92. If the sampled periods are not confined to census years, the values of critical explanatory variables such as the percentage of blacks or Hispanics must be estimated for the years between each census. To avoid measurement error in such critical explanatory variables and findings that would automatically favor some hypotheses over others, we limit this study to these three periods.⁵ The sample must begin in 1970 as appropriate information about several important explanatory variables is unavailable before then.

Death sentences in each of these three two-year periods are summed to reduce the proportion of states with no death sentences and to increase this measure's stability. By pooling the number of death sentences in large aggregates like states over two years, we reduce the probability that a few idiosyncratic events will distort the findings. Although there are well-publicized exceptions, death sentences result from an elaborate legal process that has been designed to eliminate caprice (see note 1). This sentence is not common, but the number of death sentences in large aggregates like U.S. states is less likely to be based on chance than many other social events. There is substantial variation in the number of death sentences. In 1991-92 Florida sentenced 87 persons to death followed by California with 79 death sentences in 1981-82, Texas with 67 in 1991-92, and California with 66 in 1991-92. Sixty-eight cases out of the 150 we analyze or 45% of the state-years in this sample are scored 0 because no

offenders received the death sentence in such states during one of these three two-year periods. In more than half or 36 of these 68 state-years, capital punishment was not legal.

Estimation

Because we analyze the modest number of death sentences and because there are important reasons to avoid rates (Osgood 2000), we use a statistical procedure expressly designed to estimate integer counts of unusual events (Cameron & Trivedi 1998).⁶ OLS is inconsistent when the dependent variable is an integer count bounded by zero with a distribution that is not normal, but dedicated count estimators like negative binomial are not (Cameron & Trivedi 1998; Greene 2000; Long 1997). We use a negative binomial estimation procedure rather than Poisson because statistical tests show that overdispersion is present.

Death sentences may be absent either because capital punishment was illegal in a jurisdiction or because this punishment was legal, but the trial courts in a state never imposed this sentence. Selection bias might be present if we confined this analysis only to the 114 state-years when capital punishment was legal. We handle this difficulty by including all 150 state-years, but we use a statistical approach that separately models the determinants of the number of death sentences above one and the determinants of zero death sentences.

We estimate with a zero-inflated negative binomial procedure (Cameron & Trivedi 1998; Long 1997) that uses two equations. One estimates the factors that produce zero scores while the other equation models the factors that produce integer counts above one. According to Cameron and Trivedi (1998:128) zero-inflated estimation is appropriate if the population can be realistically divided into two subgroups with a segment in one these subgroups *never* being at risk of the outcome in question. This procedure is best used when the zero category of a count dependent variable contains a mix of cases with some cases at risk of the outcome while others are not (Cameron & Trivedi 1998; Greene 2000). If capital punishment is illegal, no offender can be sentenced to death. Zero death sentences therefore could be due to either a failure to use the death sentence when it was legal or to the absence of a legal death penalty. Hence, these sentences fit this zero-inflated mixture requirement perfectly.

We handle the panel nature of the data and the fact that observations from the same state in these three time periods are not likely to be independent by correcting the standard errors for the interdependence between state scores over time. This cluster procedure produces less efficient but more robust estimates of the standard errors than those from a dedicated panel estimator (Rogers 1993). Estimation with a zero inflation procedure will let us retain the

states without the death penalty and avoid selection bias at the potential cost of larger standard errors, but this cost apparently is minimal.⁷

EXPLANATORY VARIABLE MEASUREMENT

Berry et al. (1998) view public political ideologies as the mean position on a liberal-conservative continuum. To compute a measure that varies over time, they identify the ideological position of each member of Congress with interest group ratings (Americans for Democratic Action, Committee on Political Education) of that representative's voting record. They estimate public ideology within each congressional district with the ideology score for the district's incumbent and an estimated score for that incumbent's challenger in the last election. Incumbent ideology scores are combined with estimated challenger ideology scores weighted by within-district election margins to capture district ideologies. State liberalism-conservatism scores are calculated with the mean of these congressional district scores with liberal states given the highest scores.

We measure religious fundamentalism with the natural log of a scale created by Morgan and Watson (1991) based on state church memberships enumerated by Quinn et al. (1982). This indicator captures the percentage of state residents who are members of fundamentalist churches. This scale is available only for 1980, but Newport (1979) suggests that church affiliations in large aggregates like states are stable.

We assess one type of minority presence and racial threat with both continuous and threshold measures of the percentage of blacks. Findings show that a black presence dichotomy has the greatest explanatory power when the legality of the death penalty is at issue (Jacobs & Carmichael 2002), but this operationalization is controversial. We follow the Jacobs and Carmichael and report models with a dummy scored 1 if the percentage of blacks in a state is greater than the state median (or 6.4%), but we use a continuous approach as well and include the natural log of the percentage of blacks in a state in one equation (some variables are in natural log form to correct skewed distributions and eliminate outliers). Another type of minority presence is assessed with the natural log of the percentage of Hispanics.⁸ Because the dependent variable is a count, we also see if the number of African Americans as well as their percentage matters.

Unemployment is measured with census rates. We capture the threat of violent crime with the natural log of the UCR violent crime *rates*, and we control for the number of capital offenses by including the *number* of murders in each state in most analyses. We use violent crime in rate form because we want to assess the threat of violent crime in jurisdictions with different population sizes. The number rather than the violent crime rate also would be inappropriate because the great majority of violent crimes are not capital

offenses.⁹ We use the number of murders rather than the murder rates to capture the number of offenders at risk of the death penalty. Population is included in all models to adjust for the likelihood that the number of death sentences should be greater in the most populated states. Finally to control for unmeasured trend effects, the models include period dummy variables while dummies coded for census regions capture otherwise unmeasured effects.

The prior discussion suggests that the ideology index that gives politically liberal states a higher score should be inversely related to the number of death sentences. The coefficients on all other explanatory variables should be positive in the first equation that predicts death sentence counts above one. The second equation predicts the probability of a zero score, or the absence of death sentences (Long 1997; Long & Freese 2001), so we expect opposite signs on the coefficients on theoretically relevant explanatory variables in this equation. As we do not predict signs on the region or the trend variables, two-tailed tests are used to assess these effects, but all other relationships are assessed with one-tailed tests.

SPECIFICATION

One of the more general specifications of the primary zero-inflated negative binomial equation that models integer counts of one or more death sentences therefore is:

$$N \text{ Death sentences} = b_0 + b_1 \text{Fundamentalism} + b_2 \text{Ideology} + b_3 \text{Violent crime Rate} + b_4 \text{Percent unemployed} + b_5 \text{Population} + b_6 N \text{ Murders} + b_7 \text{Percent black} + b_8 \text{Percent Hispanic} + b_9 \text{Republican gov.} + b_{10} \text{Percent Republican legislature} + b_{11} 1970 + b_{12} 1980 + b_{13} \text{South} + b_{14} \text{West} + b_{15} \text{Midwest} \quad (1)$$

where N death sentences is the number of death sentences in a state equal to or greater than one in the two years after each of the three census years, and the other variables are operationalized as described above.

Because a more concise specification has greater explanatory power than more complex alternatives and because there is *no* statistical reason to include the same explanatory variables in the second equation that predicts the probability of zero death sentences (Long & Freese 2001), the secondary equations will be parsimonious. One of the more general specifications of the remaining zero-inflated negative binomial equation that predicts the absence of death sentences using probit estimation therefore is:

$$\text{Death sentence absence} = b_0 + b_1 \text{Percent black} + b_2 \text{Percent Hispanic} + b_3 \text{Ideology} + b_4 \text{Republican gov.} + b_5 \text{Percent Republican legislature} + b_6 1970 + b_7 1980 + b_8 \text{South} + b_9 \text{West} + b_{10} \text{Midwest} \quad (2)$$

TABLE 1: The Expected Signs, Variable Means, and Standard Deviations Across States and Over Time for States

	Expected Sign	Mean	Overall Standard Deviation	Cross-State Standard Deviation	Over-Time Standard Deviation
Number of death sentences		8.073	15.376	12.410	9.191
Religious fundamentalism	+	-2.222	1.295	1.304	.000
Liberalism-conservatism	-	45.072	15.980	14.761	6.356
Ln violent crime rate	+	5.820	.692	.603	.347
Percent unemployed	+	6.009	1.716	1.270	1.164
Population	+	4510.367	4840.705	4805.565	805.577
Number of murders	+	410.000	595.786	570.932	182.682
1 if percent black \geq state median	+	.500	.502	.486	.095
Ln percent black	+	1.488	1.433	1.435	.141
Ln percent Hispanic	+	.716	1.161	1.125	.316
1 if Republican governor	+	.433	.497	.295	.401
Percent Republicans in the legislature	+	40.401	19.419	17.872	7.873

Note: 150 state-years; expected signs refer to equations that explain one or more death sentences; expected signs are opposite in secondary equations that predict zero death sentences).

where Death Sentence Absence is coded 0 if a state had no death sentences and 1 if a state had one or more death sentences in the two years after each census year, while the explanatory variables are defined as above. In all but one of these secondary probit based zero-inflated equations that predict zero death sentences we follow Jacobs and Carmichael (2002) and test for discontinuous threshold effects by using a dummy variable coded 1 if black presence is greater than the state median. In supplemental analyses we check the results with zero-inflated negative binomial analyses restricted to only the last two periods in the sample.

Analyses

VARIABLE MEANS, DISTRIBUTIONS, AND A CROSS-TABULATION

Table 1 shows the expected signs in the primary zero-inflated equations that explain the number of death sentences equal to or greater than one along with means and standard deviations. The partitions in the last two columns of Table 2 show that considerable cross-sectional and overtime variation in the dependent variable is present.¹⁰ If we exclude the period from 1971 to 1972

TABLE 2: The Mean Number of Death Sentences Classified by the Median Percentage of African Americans and by Fundamentalism above and below the State Median

		Fundamentalism \geq Median	
		No	Yes
Percent black \geq median	No	1.478 (102)	1.833 (11)
	Yes	11.00 (363)	17.50 (735)

Anova F-test = 18.52 Significance $\leq .000$

Note: 150 state-years; number of death sentences in parentheses.

when the anticipated Supreme Court decision (*Furman*) that was about to make capital punishment unconstitutional reduced the number of death sentences, mean death sentences increase from 8.07 to 11.13. This 37.9% change shows that trend-effects should be held constant.

Table 2 shows mean counts of death sentences cross-classified by whether states had more or less than the state median percentage of blacks and by whether a state was above or below the median on religious fundamentalism. This elementary but vivid comparison suggests that strong associations between death sentences and two theoretically interesting explanatory variables are present. States with the most African Americans and those with the largest membership in fundamentalist churches seem more likely to use the death sentence.¹¹ While the contrasts in Table 2 may not persist after other factors are held constant, these tabulations nevertheless imply that any subsequent findings about the presence of such associations have an underlying basis in that they are not an artifact of advanced estimation techniques.

MULTIVARIATE ANALYSES

The results from the zero-inflated count models are presented in Table 3. With the number of capital offenses (murders) held constant, model 1 assesses the explanatory power of conservative religious and political values, the violent crime and unemployment rates, and controls for region and period. The number of capital offenses and population are held constant in this and in all other models as well. In model 2 we add black and Hispanic presence. To gauge political effects in model 3, we replace the two minority threat variables with Republican governor presence and Republican strength in the legislature.

TABLE 3: Zero-inflated Negative Binomial Estimates of the Number of Death Sentences in the States in 1971–1972, 1981–1982, and 1991–1992

	1	2	3	4	5
1 + Death Sentences					
Ln religious fundamentalism	.5086*** (.1028)	.5460*** (.1142)	.5089*** (.1111)	.5555*** (.1192)	.5476*** (.1491)
Liberalism-conservatism	-.0110 (.0081)	-.0092 (.0085)	-.0113 (.0082)	-.0086 (.0091)	-.0132 (.0097)
Ln violent crime rate	.8223*** (.2284)	.7239*** (.2053)	.8327*** (.2583)	.6881** (.2308)	.9185*** (.2967)
Percent unemployed	.0864 (.0562)	.0909 (.0617)	.0728 (.0577)	.0766 (.0630)	.0851 (.0672)
Population	.0001*** (.0000)	.0001*** (.0000)	.0001*** (.0000)	.0001*** (.0000)	.0002** (.0000)
Number of murders	-.0003 (.0003)	-.0003 (.0003)	-.0003 (.0003)	-.0004 (.0003)	-.0005 (.0003)
1 if 1970	-.9291*** (.2570)	-.9289*** (.2910)	-1.0016*** (.2868)	-1.0263*** (.3151)	-.9747*** (.2769)
1 if 1980	.1427 (.1271)	.1453 (.1261)	.1312 (.1351)	.1322 (.1324)	.1188 (.1437)
1 if percent black ≥ State median (ln percent black in model 5)	— —	.1682 (.4241)	— —	.1792 (.4093)	-.0875 (.1578)
Number of blacks	— —	— —	— —	— —	-.0000 (.0000)
Ln percent Hispanic	— —	.1082 (.1353)	— —	.1475 (.1392)	.1028 (.1503)
1 if Republican Govenor	— —	— —	.1678 (.1968)	.1821 (.1850)	.1832 (.1848)
Percent Republicans in Legislature	— —	— —	-.0046 (.0068)	-.0066 (.0070)	-.0096 (.0089)
1 if Midwest	-.9478* (.4133)	-.9843* (.4281)	-1.0095* (.4671)	-1.0465* (.4589)	-.9746* (.4922)
1 if West	-1.1418** (.4159)	-1.2321* (.5027)	-1.1271** (.4326)	-1.2498* (.4896)	-1.4390** (.4895)
1 if South	-1.0737* (.4790)	-1.1439* (.4834)	-1.1570* (.4998)	-1.2582* (.5095)	-1.1000 (.5682)
Intercept	-1.6265 (1.1535)	-1.1498 (1.1476)	-1.4389 (1.2584)	-.6321 (1.2779)	-1.5270 (1.4523)

Notes: 150 state-years; cluster corrected standard errors.

Model 4 includes the two racial minority threat variables and the two political measures as well as all explanatory variables in the prior models. In this model,

TABLE 3: Zero-inflated Negative Binomial Estimates of the Number of Death Sentences in the States in 1971–1972, 1981–1982, and 1991–1992 (Cont'd)

	1	2	3	4	5
Death sentence absence					
1 if percent black \geq state median (ln percent black in model 5)	–1.8164*** (.4638)	–1.7883*** (.4615)	–1.8310*** (.4701)	–1.7650*** (.5026)	–.7007* (.3796)
Ln Percent Hispanic	— —	— —	— —	–.0504 (.3073)	–.0872 (.4503)
Liberalism-conservatism	.0670* (.0292)	.0660* (.0282)	.0689* (.0300)	.0672* (.0298)	.0728** (.0295)
Ln religious fundamentalism	— —	— —	— —	— —	.0569 (.4688)
1 if Republican Governor	–.7500* (.4155)	–.7571* (.4265)	–.7260* (.4262)	–.7545* (.4483)	–.8972* (.5150)
Percent Republicans in legislature	.0116 (.0199)	.0104 (.0200)	.0106 (.0204)	.0085 (.0214)	–.0040 (.0215)
1 if 1970	.0175 (.8261)	.0522 (.8049)	–.0712 (.9616)	–.0659 (1.0891)	.0472 (.6674)
1 if 1980	.6702* (.3088)	.6631* (.3108)	.6791* (.3249)	.6582* (.3170)	.6855* (.2938)
1 if Midwest	.1010 (.7556)	.0872 (.7571)	.1056 (.7732)	.0670 (.7561)	.4909 (.9143)
1 if West	–1.3476 (.8141)	–1.3121 (.7793)	–1.3841 (.8553)	–1.2921 (.8840)	–1.1345 (1.3149)
1 if South	–.9867 (.9271)	–1.0344 (.9797)	–1.0099 (.9443)	–1.1313 (.9346)	–1.0508 (1.3423)
Intercept	–2.7138 (2.3729)	–2.6190 (2.3000)	–2.7657 (2.4254)	–2.5527 (2.3270)	–2.2177 (2.3597)
Pseudo R ²	.254	.255	.256	.258	.252
Log-likelihood	–298.2	–297.7	–297.3	–296.5	–298.8
χ^2	334.6***	624.9***	330.0***	752.6***	626.5***

Note: 150 state-years; cluster corrected standard errors. Standard errors beneath coefficients; one-tailed tests except for region and year.

* $p \leq .05$ ** $p \leq .01$ *** $p \leq .001$

Hispanic presence is added to the secondary equation that predicts the absence of death sentences.

In model 5 we add the number of African Americans to the equation predicting the number of death sentences above 1 and we add religious traditionalism to the secondary equation that predicts the absence of death sentences. In all prior models we followed the Jacobs and Carmichael (2002) precedent and operationalized racial threat effects with a dummy scored 1 if

TABLE 4: Supplemental Analyses Using Zero-inflated Negative Binomial Estimates of the Number of Death Sentences in 1981–1982 and 1991–1992

1 + Death Sentences	Model 1		Model 2	
	Coefficient	Standard Error	Coefficient	Standard Error
Ln religious fundamentalism	.5446***	.1161	.5633***	.1063
Liberalism-conservatism	-.0134	.0097	-.0125	.0100
Ln violent crime rate	.7763***	.1931	.7308***	.2038
Percent unemployed	.0423	.0710	.0292	.0762
Population	.0002*	.0001	.0002*	.0001
Number of murders	-.0005	.0005	-.0007	.0006
1 if 1980	.1877	.1290	.2038	.1285
1 if percent black ≥ state median	.2219	.3865	.3118	.4081
Ln percent Hispanic	.1732	.1204	.2167	.1339
1 if Republican governor	—	—	.2201	.1895
Percent Republicans in legislature	—	—	-.0019	.0071
1 if Midwest	-.9798*	.4412	-1.0911**	.3881
1 if West	-1.3287*	.6129	-1.2923*	.6096
1 if South	-1.1384*	.5697	-1.1609*	.5207
Intercept	-1.1494	1.1967	-.8979	1.1190
Death sentence absence				
1 if percent black ≥ State median	-3.0619***	.8364	-3.0681***	.8411
Ln percent Hispanic	.3427	.3890	.3598	.3937
Liberalism-conservatism	.0891**	.0321	.0893**	.0316
1 if Republican governor	-.2531	.3865	-.2201	.3861
Percent Republicans in legislature	-.0044	.0223	-.0052	.0225
1 if 1980	.9150*	.3753	.9228*	.3690
1 if Midwest	-.4343	.8419	-.4469	.8401
1 if West	-2.8652*	1.1840	-2.8927*	1.1871
1 if South	-1.5095	.9932	-1.5390	1.0057
Intercept	-2.6047	2.7584	-2.6099	2.7504
Psuedo R ²	.274		.277	
Log-likelihood	-219.9		-218.9	
χ ²		-730.8***		1271.3***

Note: 100 state-years; cluster corrected standard errors

* p ≤ .05 ** p ≤ .01 *** p ≤ .001 (one-tailed tests except for region and year)

the percentage of African Americans is greater than the median for all states. In model 5, however, we use a percentage rather than a dummy as a measure of racial threat in both the primary and secondary equations to assess a continuous specification. Recall that these secondary equations predict the

likelihood of *zero* death sentences, so we expect *opposite* signs on the theoretically relevant variables in the primary and secondary equations.

The results in the first pair of equations that together constitute model 1 show that religious conservatism helps explain the number of death sentences above one with signs in the expected direction. We also find that jurisdictions with larger populations and higher violent crime rates sentence more offenders to death after the number of murders has been held constant. The secondary equation in model 1 shows that states with African American populations greater than the median percentage and states with a Republican governor are more likely to use the death sentence at least once, but an absence of these sentences is more probable in politically liberal jurisdictions. The theoretical implications are identical in model 2 after we add the percentage of Hispanics.

The variables that matter in model 1 help explain both death sentence outcomes, but minority threat does not explain the number of death sentences above one. The political variables added in the first (primary) equation in model 3 also do not account for the number of death sentences. The variables that covary with the number of death sentences above one and those that explain zero death sentences in the prior models continue to matter in model 4 after all explanatory variables have been included. The results in model 5 suggest that a threshold measure has greater explanatory power than the continuous measure of African American presence. The findings also persist after the number of African Americans is added to the primary equation that predicts the number of death sentences and after fundamentalism has been added to the secondary equation that predicts zero death sentences. The negative signs on the regional variables in the first equations suggest that, if the states in the Northeast were as religiously conservative and if they had the same violent crime rates and were as large as the states in other regions, the Northeastern states would be likely to use the death sentence at least as often as their counterparts. While we find that the number of death sentences beyond one is greater in more religiously conservative jurisdictions with more violent crimes, racial threat only influences the complete absence of death sentences.

The findings from all five models provide a consistent picture of the determinants of death sentences. Religious fundamentalism and the threat of violent crime always explain the number of death sentences above one. African American presence beyond a threshold and the presence of a Republican governor make the complete absence of this sentence unlikely, but zero death sentences are probable in the most liberal states. Yet religious fundamentalism was measured in the late 1970s, so we should see what happens if we eliminate the 1970 period.

Additional Tests

Although researchers claim that church membership is almost entirely inherited from one's parents (Newport 1979), so changes in fundamentalist strength in large aggregates like states should be infrequent, we can see if the results hold when the analysis is restricted to the periods after fundamentalist church membership was measured. We present two additional zero-inflated negative binomial models in Table 4, but these models are restricted to the 100 state-years in 1980 and 1990. In these models, we follow prior specifications as much as possible, but we eliminate a few ineffective explanatory variables to conserve degrees of freedom as these results are based on only 100 cases.

The findings in Table 4 show that limiting the sample to the last two periods yields almost identical results. Except for Republican governor effects, all theoretically relevant explanatory variables that accounted for the number of death sentences equal to or greater than one in the prior analyses continue to do so in these models. Religious conservatism, violent crime, and population again explain the number of death sentences, while the threshold measure of racial threat and political ideology continue to account for whether a state ever used the death sentence. It follows that all theoretically relevant effects but Republican strength persist when the zero-inflated negative binomial analyses are restricted to the 1980 and 1990 periods.

The zero-inflated negative binomial count models reported in Tables 3 and 4 always pass the Vuong test. Such test results show that a zero-inflated procedure is more appropriate than single equation count procedures. The results of a χ^2 test for overdispersion indicate that this difficulty is present, so a zero-inflated negative binomial procedure is more appropriate than Poisson. Additional models (not shown) indicate that the same effects matter after we remove the four state-years with the most death sentences, so the results cannot be attributed to states with extreme counts. In other unreported models, we find that adding variables such as economic inequality, the percentage of female-headed families, or the percentage of residents born in state have negligible relationships. And intervening effects apparently are not present. For example, hypotheses that threat measures work through partisanship or ideology to affect the number of death sentences are not supported.¹² Interactions between period and Hispanic presence also do not explain either outcome despite the recent sharp growth in the Hispanic population. Attempts to detect other threshold effects with additional dummy codes were unsuccessful as well.¹³

The sharp contrasts in the number of death sentences when this outcome is cross-classified with two of the more important explanatory variables plus the stability and persistence of these effects after we use diverse specifications and different samples suggest that these findings are not methodological artifacts. Controls for time and region are included in the models and many

other factors are held constant. All of these considerations support our hope that we have uncovered the major processes that produce differences in the number of death sentences.

Conclusions

RESULTS

We find strong evidence for the primary theoretical considerations that motivated this analysis. Religious ideology explains the number of death sentences, yet racial threat above a threshold only accounts for the absence of death sentences. After the number of capital offenses and many other factors have been held constant, the findings always show that jurisdictions with the largest violent crime rates are more likely to sentence offenders to death. Such results support Rankin's (1979) finding that a close positive relationship exists between violent crime rates and public support for the death penalty. Our results suggest that the menace produced by such non-capital-violent offenses produces expansions in the actual use of the death sentence. Unemployment, however, is completely ineffective.

The findings about racial threat are more complicated. We find no evidence for a connection between African American presence and the number of death sentences above one, and these results persist no matter how this variable is measured. The findings from secondary probit equations that predict the absence of death sentences suggest that jurisdictions with African American presence above a threshold are more likely to use the death sentence at least once. The findings from these secondary equations are *in part* (but not completely) based on a primary reason for the absence of this punishment. If capital punishment is illegal, death sentences are not possible. Prior research shows that the death penalty is likely to be legal in states when the percentage of blacks is greater than the same threshold (Jacobs & Carmichael 2002). These results corroborate that finding by showing that an identical threshold dummy has greater explanatory power than its continuous alternative when the complete absence of the death sentence is at issue.¹⁴ But capital punishment was legal in some states that never used the death sentence, so these secondary equations capture both effects.

We find no evidence for an ethnic version of threat theory. Hispanic presence does not have any explanatory power and dummy coding does not alter these negative results. Such contrasts about the influence of racial rather than Hispanic threat should not be surprising in light of the extremely divisive conflicts about race throughout U.S. history (de Tocqueville 1948; Myrdal 1944). Yet subsequent studies may produce more definitive findings. Hispanic populations are concentrated in only a few states. This ethnic group may not

be widespread or large enough to trigger repressive responses, but the results nevertheless persist when we conduct analyses (not shown) limited to states with the most Hispanics. Future studies, however, may support this threat account because the Hispanic population has continued its rapid growth after the last period we could analyze.

The results provide mixed support for partisan accounts based on the political strength of the Republican party. Historical evidence indicates that Republican candidates for both state (Constanzo 1997; Davey 1998) and national offices (Chambliss 1994; Edsal & Edsal 1991) placed far greater emphasis on severe punishments than Democrats. We find that an absence of the death sentence is unlikely in states with a Republican governor in the three period analyses, but this finding does not hold when we limit the sample to the last two periods.

As many political and social theorists (Garland 1990; Lacy 1988; Molnar 1976; Thorne 1990) would expect, the findings show that zero death sentences are improbable where conservative political convictions are strongest. Another equally important ideological finding concerns religious values. With region and many other explanations held constant, the results always suggest that more death sentences can be expected where membership in fundamentalist churches is greatest. Because the supplemental findings in Table 4 show that this explanation continues to matter when we restrict the sample to the last periods, the results support a conclusion that fundamentalist religious beliefs are an important determinant of death sentences.

These persistent effects suggest that past findings about the close relationships between fundamentalism and punitive attitudes (Curry 1996; Grasmick et al. 1992; Grasmick & McGill 1994) have consequences that go beyond attitudes. In addition to positive views about harsh punishments, religious fundamentalism also helps explain the actual imposition of the most severe penalty. Our repeated findings about the close relationships between the strength of political or religious conservatism and the use of the death sentence corroborate arguments by Garland (1990, 2001), Savelsberg (1994), and Windlesham (1998), about the significance of public ideologies in a directly democratic populist polity when sanctions for capital offenses are at issue.

WIDER IMPLICATIONS

These results suggest that the factors that provide the strongest explanations for the presence of a legal death penalty do not always account for the number of death sentences. While enhanced economic inequality heightens the likelihood that capital punishment will be legal (Jacobs & Carmichael 2002), this outcome does not explain the number of death sentences. We find other theoretically interesting contrasts. The strength of conservative political convictions helps account for the legality of the death penalty, but religious

fundamentalism does not (Jacobs & Carmichael 2002:125). Yet both religious and political conservatism contribute to the number of death sentences although they have differing effects on the degree to which this sentence is used. Although public sentiments contribute to both outcomes, such divergent findings imply that trial courts are more responsive to public values than the political officials who make decisions about the legality of this penalty.

The results reported in this study support conclusions from disparate research streams in other disciplines. Findings about the links between fundamentalism and a willingness to use the death sentence highlight the continued relevance of historical studies of religion (Ignatieff 1978; McGowen 1995) that find close relationships between religious views and the evolution of criminal punishments. Because the findings suggest that two facets of public ideology are such persistent determinants of death sentences, our results also support the research on judicial behavior in political science that shows how much the federal and state appellate court decisions are affected by public opinion (Carp & Stidham 1996; Hughes 1995). The evidence from this and other analyses (Helms & Jacobs 2002) suggests that local trial courts are at least as responsive as higher courts to shifts in public values.

This evidence supports additional theoretical claims. In a suggestive pair of theoretical presentations, Savelsberg (1994) and Garland (2001) put forward convincing arguments about the explanatory power of public values about crime and punishment. Our results confirm their claims that public ideologies account for differences in the ways that serious offenders are punished in the U.S. compared to their less severe treatment in Germany (Savelsberg 1994) or in the United Kingdom (Garland 2001). Findings showing that religious and political convictions are fundamental to a complete understanding of the imposition of the death sentence increase the plausibility of both theoretical accounts.

Although these findings about the relationships between political or religious convictions and harsh punishments are theoretically useful, it is worth reemphasizing that our results might not hold in the other advanced but typically more elitist democracies. Public values can be expected to have more influence in societies where social policy is not decided by unelected experts (Savelsberg 1994). In contrast to the centrally administered advanced democracies in Europe (Garland 2001; Savelsberg 1994), the relationships between public images of crime and punishment should be more substantial in a directly democratic polity like the U.S. when courts make decisions about such an intensely moralistic issue.

More generally, this investigation provides reasons to believe that the recent political emphasis in the theoretical literature is correct. Our results support claims (Chambliss 1994; Foucault 1977; Garland 1990, 2001; Savelsberg 1994) that punishment is an intensely political process because deeply felt religious

and political convictions are important determinants of the harshest criminal sentence. Another important implication concerns the possibilities for integrating research on punishment with theories in other subdisciplines. Our findings suggest that explanations borrowed from research on race relations, politics, or religion can provide important insights about how often the most severe penalty is used. A third equally significant implication concerns the embeddedness of the courts. We find that the trial courts behave like virtually all other important institutions. They too are heavily influenced by political and social conditions in their environment, so research on sentencing must not ignore contextual effects.

Notes

1. The Supreme Court struck down the constitutionality of the death penalty in its 1972 *Furman* decision. In 1976 in *Gregg*, *Proffitt*, and *Jurek* the Court reversed and upheld the constitutionality of guided discretionary death penalty statutes if they are combined with a separate sentencing procedure. These alterations represent an attempt to achieve sentencing equity across state courts by requiring standardized instructions to juries that list aggravating or mitigating factors that must be considered in the separate penalty phase conducted after a capital conviction (Paternoster 1991; Zimring & Hawkins 1986). Most death penalty states then altered their statutes to meet the new requirements. We include period controls to capture shifts in death sentences due to these decisions and any other unmeasured historical events.
2. Careful reviews of the many studies (Paternoster 1991; Zimring & Hawkins 1986) invariably conclude that the death penalty has no discernable general deterrent effects beyond those conferred by long prison terms. Yet even absolutely indisputable documentation of the death penalty's failure as a deterrent probably would have little effect on public opinion because most public support for the death penalty is based on the retributive doctrine that the state ought to kill pernicious killers (Hood 1998; Zimring & Hawkins 1986).
3. Bureau of Justice Offender Based Transaction Statistics show how unusual the death sentence is. In a representative sample of all felony convictions in five death penalty states (Missouri, Nebraska, New Jersey, Pennsylvania, and Virginia) in 1990, only about two per thousand convicted offenders received the death sentence. The tiny proportion cannot be attributed to an unwillingness to use the death sentence. Our state-level data suggests that in the early 1990s these five states were slightly more likely to use this sentence than other death penalty states. The infrequency of the death sentence and other data limitations unfortunately mean that general findings about contextual explanations for death sentences probably cannot be provided using the available data on how individual offenders are sentenced.
4. Methodological obstacles probably make an analysis of executions at the state level impossible. Between 1972 and 1990 the federal courts required that about 21% of all initial death sentences be retried by state courts, but less than 3% of these remanded death sentences were reimposed in the second state trial. The federal courts are not

subject to state law so their behavior cannot be modeled with state level explanatory variables. Changes in the delay between the initial death sentence and an execution (now more than nine years), extreme differences in this delay across states (Zimring 2003), alterations in both the state and federal legal procedures, the shifting influence of the federal appellate process, and other data problems make a defensible state level analysis of executions extremely unlikely.

5. Including periods separated by multiple years in a pooled time-series design reduces serial correlation and the effects of measurement error (Johnston & DiNardo 1997).

6. The proportion of zero scores and the modest number of death sentences strongly suggest that this outcome is best analyzed with statistical estimators designed to estimate counts. We could calculate death sentence *rates* per million residents, but analyses of unstable rates computed on rare events produces questionable results. Just one historically unique death sentence in a small state can cause a dramatic shift from zero to a high rate. Small state variances therefore exceed their large state counterparts, and such effects produce heteroskedasticity and outliers. Osgood (2000) provides a lucid discussion of the many advantages of analyzing counts rather than rates when a dependent variable is unusual.

7. Fixed-effects estimation only captures over time covariation, so the effects of a theoretically important time-invariant effect like religious fundamentalism cannot be assessed with this approach. And the zero-inflated procedure we use because it eliminates selection bias cannot be combined with fixed-effects estimation. This zero-inflated approach also produces far more stable estimates than attempts (not shown) to overcome selection problems using Heckman procedures.

8. Separate indicators are used to capture African American and Hispanic presence because these populations differ substantially in particular states. Adding these measures together would require the implausible assumption that the coefficients on these variables are identical.

9. Before the start of our sample, offenders infrequently were given death sentences for rape, but before 1970 the federal courts forbid the death sentence for rapists. While violent crimes in rate form should capture one kind of threat, with the exception of the unusual murder, no other violent crimes were capital offenses that could result in a death sentence in this analysis. Hence, violent crimes should be in *rate* rather than count form because a growth in violent crime *rates* should produce greater public anxiety and increased demands for harsh measures.

10. The partitioning of panel measures into their time and space components is calculated with the XTSUM procedure in Stata version 7, which computes both longitudinal and cross-sectional standard deviations.

11. Most of the states with the largest number of death sentences in the bottom right quadrant in Table 2 are southern. Only Indiana and Missouri are exceptions. States that used this sentence least tend to be ethnically homogeneous Northern jurisdictions. Examples include Connecticut, the Dakotas, Idaho, Massachusetts, Montana, Nebraska, New Hampshire, Vermont, Washington, and Wyoming. Although the presence of an interaction effect would not be surprising in light of the comparatively high death sentence count in the bottom right cell, we find no evidence for such effects.

12. The conventional way to detect indirect effects involves path analysis, but this procedure is inappropriate in a two-equation zero-inflated count analyses. A more defensible approach involves removing explanatory variables. For example, conservative values may work through partisanship to increase the number of death sentences. Republicans should be more likely to be elected in conservative states and Republican office holders may alter the relevant laws to make it easier for trial courts to apply the death sentence. If ideology influences the number of death sentences by going through Republican strength, adding Republican strength measures to the models should reduce the coefficients on ideology. Yet the results show that the coefficients on both ideology measures increase when we add measures of Republican strength to the equations that predict the number of death sentences greater than one. Other attempts to find plausible indirect effects produce the same negative results.

13. Collinearity is present between the number of murders and state population, but these two controls are vital if the analyses are to be credible. If we drop the number of murders from the equations, changes in the results are inconsequential. These latter findings should not be surprising in light of the negligible explanatory power of this variable. In any case, there is strong evidence that problems with collinearity are *not* distorting the results. The primary difficulty imposed by collinearity is unstable coefficients. Yet the multivariate findings remain stable despite substantial changes in the specifications or the sample.

14. Models that include a dummy coded 1 if the death penalty is legal in the secondary probit equations that predict the absence of death sentences cannot be estimated due to collinearity.

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A Critical Mass Model of Bilingualism among U.S.-Born Hispanics*

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Abstract

The overarching question in this article is: What contextual and individual-level factors influence the decision to maintain Spanish, or see to it that one's children learn and maintain it? I first model the configuration of area-specific circumstances that influence the degree to which Spanish-English bilingualism (as opposed to English monolingualism) is viable or desirable in a particular metro area. When contextual incentives for bilingualism are included in individual-level models, context — especially bilinguals' status and Hispanics' political influence — greatly influences the odds of bilingualism among native-born Hispanic adults. In addition to other macrolevel factors, there is evidence for a critical mass effect. People are more likely to maintain bilingualism when lots of others around them are doing the same thing.

It is impossible for a state to be neutral toward language. Governments necessarily make choices about which language or languages they will communicate in. The state's choices influence the value of the linguistic capital of various groups in the population, including immigrants whose native language differs from that of the host country. The same is true of the institutional contexts for work and school. In the U.S., the dominance of English in government,

** The author thanks Terry Boswell, Julie Brines, Patty Glynn, Pete Guest, Jerry Herting, Charlie Hirschman, Edgar Kiser, David Laitin, Margaret Levi, Debra Minkoff, Deenesh Sohoni, Kate Stovel, Ray Tatalovich, Bruce Western, and two anonymous Social Forces reviewers for helpful comments and suggestions. An earlier draft of this article was presented at the meetings of the American Sociological Association in Anaheim, California, August 21, 2001. The research was supported by a grant from the American Educational Research Association, which receives funds for its AERA Grants Program from the U.S. Department of Education's National Center for Education Statistics and the Office of Educational Research and Improvement, and the National Science Foundation under NSF Grant #RED-9452861. Opinions reflect those of the author and do not necessarily reflect those of the granting agencies. Direct correspondence to April Linton, Department of Sociology, University of California, San Diego, 401 Social Science Building, 9500 Gilman Drive 0533, La Jolla, CA 92093. E-mail: aplinton@ucsd.edu.*

industry, education, and popular culture has made it “the single most important element in the construction of national identity, both positively as a communicative instrument shared by members of the nation and as a boundary marker affirming their distinction from others” (Zolberg & Long 1999:22). Popular ideals of immigrant assimilation have often placed as much importance on immigrants losing the characteristics of their homeland as on adopting the ways of the U.S. Immigrants are expected to stop using their native tongue and not to pass it on to their children. An effort to maintain this “straight-line” pattern of immigrant assimilation is implicit in efforts to establish English as the official language of the U.S., as well as in numerous campaigns to pass state-level Official English (sometimes referred to as “English Only”) laws (Tatalovich 1995).

A competing model of immigrant assimilation also exists: one that includes elements of both the sending and receiving cultures and which involves learning by longtime residents of the receiving place as well as by newcomers (Bean & Stevens 2003; Logan, Alba & Zhang 2002; López 1996; Yinger 1994). The English Plus movement politically embodies this ideal and has responded to Official English supporters’ efforts by uniting civil rights and educational organizations to promote “a strong belief that all U.S. residents should have the opportunity to become proficient in English plus one or more other languages” (English Plus 2000). For nonnative speakers, this means acquiring proficiency in English *and* maintaining proficiency in their native language(s). Proponents of English Plus view linguistic diversity (and other aspects of cultural diversity) as a national strength that provides the U.S. with a “unique reservoir of understanding and talent” (EPIC 1992:152).

This article is about a potential change in dominant language norms and patterns of linguistic assimilation — one in which the outcome of assimilation into U.S. society is bilingualism, not English monolingualism. It contributes to a small but growing body of sociological research that looks at bilingualism as a possible *endpoint* of linguistic assimilation. Stevens (1985) suggests that this could be the case among groups characterized by high rates of ethnic endogamy and non-English linguistic homogamy. In her 1992 study, she establishes the importance of the demographic context in determining whether U.S.-born adults with a non-English mother tongue continue to use that language alongside English, and that the influence of demographic variables on linguistic choices is “partly channeled through their effects on marriage patterns, i.e., the likelihood that a respondent has a spouse with facility in the same non-English language” (181).

In their longitudinal study of the children of immigrants in San Diego and Miami, Portes and Rumbaut (2001) observed a high rate of mother-tongue shift but found that the fluently bilingual teenagers in their sample were youths who did better in school, had higher aspirations for the future, enjoyed better mental health and family relations, and were more likely to have friends from abroad.

Second-generation Latino youths are more likely to belong to this group than youths from other backgrounds, especially if their parents use Spanish at home and they have co-ethnic friends. Rumbaut's (2002) analysis of data from the third wave of the same survey,¹ in which the respondents had reached adulthood, showed that the Latinos' ability to speak and read Spanish "did not atrophy but rather improve appreciably from their teen to their twenties" (67). About 25% reported fluent bilingualism, and over 75% (which included respondents who reported being English-dominant, Spanish-dominant, fully bilingual, or bilingual in a limited way) expressed the wish to raise their own children in Spanish and English. The work of Alba et al. (2002) also evidences some "staying power" for Spanish, especially in supportive familial and community contexts. These researchers used 1990 PUMS and CPS data to study language patterns of second- and third-generation children. They found that the rate of intergenerational language shift is lower for Spanish speakers as compared to other immigrant groups or to Spanish speakers in times past.

Spanish has persisted to a much greater degree than other non-English languages for many reasons. Most contemporary immigration to the U.S. is from Spanish-speaking countries. Spanish speakers are overwhelmingly the largest non-English-language group in the country. They comprise over half of those who generally speak a language other than English at home. Spanish-language institutions and media are well established in many parts of the country, and using Spanish alongside English has become key to Latino political identity and efficacy — in both symbolic and practical terms. Noting the persistence of Spanish in the U.S., Zolberg and Long (1999) declare, "Spanish is here to stay" (31). Here I explore the questions of *where* Spanish will "stay," and *for whom*. What contextual and individual-level factors influence the decision to maintain or learn Spanish, or to see to it that one's children do so? These questions and their answers are of significant interest to those who study immigrant assimilation or national identity as well as to politicians, policymakers, and educators. This study augments previous work by theoretically and empirically expanding what is perceived as the context within which people make linguistic decisions.

The article is organized as follows: First, I briefly discuss the historical process through which English monolingualism became a mark of American identity and contemporary reasons why it still might be — especially for recent immigrants and their families. Next, I develop and test a model of the configuration of circumstances that influence the degree to which Spanish maintenance (as opposed to English monolingualism) is viable or desirable. I then explore the importance of sociostructural incentives for bilingualism in an individual-level analysis of bilingualism among English-speaking Hispanic adults in the U.S.

The Legacy of English

The U.S. has never had an official language policy. Bilingualism was relatively common in the nineteenth century, and bilingual education was not unknown.² Yet a belief emerged that “American English both reflected and constituted the democratic and rational nature of the country” (Portes & Schauffler 1996:10). For some influential thinkers, this meant far more than establishing a common language for practical reasons. English came to be seen as a crucial unifying element — uniquely suited to define the nation and its citizens (Fishman 1966).

Reflective of this notion, and undoubtedly in reaction to an all-time high level of immigration, Congress enacted an English-language requirement for citizenship in 1906. In 1907 it appointed a joint committee, the Dillingham Commission, to study immigration’s impact on the country. Guided by the theories of influential nativist scholars, the commission concluded in 1911 that new immigration consisted mostly of “inferior peoples” who were physically, mentally, and *linguistically* different and would thus not easily adopt “fundamental American ideals” (King 2000:64). World War I heightened anxieties about national loyalty and immigrant assimilation. During and following the war, several states prohibited the teaching of German. The governors of Iowa and South Dakota issued decrees prohibiting the use of any language other than English in public places or over the telephone (Piatt 1990). Schools in many states required children to take language loyalty oaths. A 1919 Nebraska statute banned teaching any language other than English before the ninth grade (Dillard 1985; Marckwardt 1980). In 1923, an Illinois law even targeted speakers of British English, declaring “American” to be the state’s official tongue (Tatalovich 1995).

Immigration virtually stopped by the 1930s, due first to restrictive legislation passed in 1920s,³ then to the Depression. The halt in new immigration encouraged linguistic assimilation among those who were already in the U.S., usually leading to English monolingualism by the third generation. The notion that immigrants should follow this pattern became powerfully entrenched.

THE CIVIL RIGHTS ERA AND BEYOND: A NEW APPRECIATION FOR LANGUAGE DIVERSITY?

In the 1960s, immigration reform, the Civil Rights Act, and the Voting Rights Act collectively provided a new basis for minority groups to politically and culturally articulate their ethnic identity. This was a potential window of opportunity for other languages to flourish alongside English. In particular, the position of Spanish in American life became part of the civil rights agenda because the obligation to exclusively use English in the public sphere disadvantaged American citizens who grew up in a Spanish-language

environment. Puerto Ricans living in New York, for example, obtained the right to vote in Spanish, obligating the state to provide bilingual ballots.

The Bilingual Education Act (BEA), originally passed by Congress in 1968, also held potential for promoting a greater valuation of Spanish and Spanish speakers in U.S. society. The BEA aimed to improve the poor school performance of immigrant children by providing funds for “transitional” programs to help children of limited English-speaking ability learn English well before transitioning into regular classrooms. These programs often involve instruction in a child’s native tongue. Yet even as it signaled intent to help children succeed in school, the language of the original BEA and its limited focus on schools serving large concentrations of poor families served to further associate bilingualism with disadvantage, cultural deprivation, and alienation (Haugen 1972; Schmidt 2000). It also did not really encourage bilingualism. Transitional bilingual programs use the native language as a bridge to ease a child’s transition to English; they do not promote proficiency and literacy in the native language.

Revisions of the BEA have greatly extended its application, goals, and the pedagogical strategies it supports.⁴ Yet it is still common to gauge success at educating the children of immigrants by evaluating how quickly they give up their first language and shift to English (García 1995). Decades after the Civil Rights movement, bilingual education has come under attack, and the U.S. is still regarded as a graveyard for foreign languages (Rodríguez 2002). Many immigrant parents do not pass their native languages on to their children because English is clearly the most socially and economically valued tongue and because they fear that bilingualism will invite discrimination (Fishman 1996; Lippi-Green 1997).

Theorizing Language Choice: Identity Formation and Selective Acculturation

Despite immigrants’ willingness to adopt and use English, today it is clearer than ever that their efforts at linguistic and cultural assimilation do not uniformly translate into structural incorporation (García 1995). Immigrants are thoroughly aware of this. Fernández Kelly and Schauffler (1996), for example, indicate that the assimilation experience and the outcomes of migration are strongly influenced by characteristics of immigrant groups and the conditions under which they came to the U.S. They identify intergroup differentiation by class, the type of reception a group receives and the quality of resources available to it, the degree of spatial concentration among group members, and the length of time a group has been established in a destination area. The respective meanings newcomers attach to living in the U.S. and becoming American are shaped by the opportunities and limitations they

perceive. "The immigrant condition forces individuals to observe themselves even as they are being observed by others. As a consequence, immigrants repeatedly engage in purposeful acts to signify their intended character and the way that character differs from, or converges with, that of other groups" (Fernández Kelly & Schauffler 1996:31).

Similarly, Erikson (1968) defines identity formation as a process "by which the individual judges himself in the light of what he perceives to be the way in which others judge him in comparison to themselves and to a typology significant to them; while he judges their way of judging him in light of how he perceives himself in comparison to them and to types that have become relevant to him" (19, 22-23, quoted in Laitin 1998:20). Laitin (1998) emphasizes the instrumentality of identity creation: "[I]dentities are constructed and reconstructed as social opportunities change" (20). People adopt identities according to how well these serve individual purposes, and reconstruct them to take advantage of new opportunities. For Hispanic⁵ Americans, identity construction clearly involves the choice of language used at home and elsewhere — that is, the value (net of costs) assigned to intergenerational Spanish maintenance.

In their research on the new second generation in America, Portes and Rumbaut (1996, 2001) develop three typologies of immigrant assimilation. One looks very much like the "melting pot" (Alba 1990; Waters 1990). The second generation adopts mainstream American customs, speaks mostly or only English, and is upwardly mobile. The second typology applies to children of immigrants who acculturate not to the mainstream, but to inner-city subcultures. While these groups' educational and labor market outcomes are opposite those of the first, their linguistic outcome is the same: English monolingualism (though perhaps not in "standard" English).

The third course is *selective acculturation*. In this process, ethnic networks and strong communities support children as they learn to deal with prejudice, navigate the education system, and find a place in the labor market. The outcome is upward assimilation combined with bilingualism and biculturalism. "While such a path may appear inimical to successful adaptation in the eyes of conventional assimilationists, in fact it can lead to better psychosocial and achievement outcomes because it preserves bonds across immigrant generations and gives children a clear reference point to guide their future lives" (Portes & Rumbaut 2001:309; cf. Glazer & Moynihan 1963). Selective acculturation offers a scenario in which maintaining a language other than English makes sense for Americans. In terms of contextual factors' influence on Spanish maintenance in the U.S., one would expect that — to the extent that bilingualism among native-born Hispanics is a result of selective acculturation — there will be proportionally more bilinguals in places where Latino populations are concentrated and where Latinos have economic and political resources at their disposal.

Several other theories offer predictions about when and where the linguistic aspect of selective acculturation, bilingualism, will be maintained. Neoclassical economic (e.g., Pool 1991), human capital (e.g., Chiswick 1991; Chiswick & Miller 1995) and functionalist (e.g., Gellner 1983) theories posit that bilingualism will be practical or desirable only to the extent that it represents a significant labor market advantage. In the first two cases the advantage is to individuals in society; in the last case it is to a particular society within a world of societies. Other theorists such as Anderson (1991), Greenfeld (1992), and Hobsbawm (1990) downplay economic incentives, instead pointing to ethnic identities and their meanings for members of various groups as the salient factors that inform official language policy and individual decisions about language acquisition and maintenance. For instance, Hobsbawm links language with the development of local political identities. This emphasis suggests that social factors such as the relative status and influence of a language, its speakers, and the ethnic group(s) with which they identify will be important determinants of linguistic choice.

Both economic rationality and culture are important components of the context within which people make decisions about language maintenance and use. After defining four orientations to social action, Weber ([1922] 1978) notes that "it would be very unusual to find cases of action, especially of social action, which were oriented only in one or another of these ways" (26). Similarly, in his discussion of language and ethnic identity in the former Soviet republics, Laitin (1998) maintains that it is impossible to separate rationality from culture. Our economic behavior may be driven by habit rather than by rational calculation; culturally derived preferences can be part of a rational utility-maximizing strategy (Becker 1976). Still, if the costs and benefits of a customary cultural behavior are changing, we will likely begin to make new calculations about maintaining that behavior. It is therefore appropriate that an analysis of language usage — a pivotal aspect of culture — will include rational calculation. "Rational," however, is not synonymous with "material." Status and influence are integral to choices about identity. We calculate about status maximization in much the same way that we calculate about wealth maximization (Frank 1985). A comprehensive model of linguistic decisions should thus include indicators of attitudes and beliefs about speakers and speech communities, as well as economic and political forces (Laitin 1988, 1992, 1993, 1998; Ricento 1998, 2000; Tollefson 1989, 1991). All of these things provide information about the costs and benefits of language choices. In addition, the model should link individual decisions and collective outcomes (Coleman 1986).

The discussion that follows is based on two premises. First, actors' orientation to action is instrumental. Based on what they know, people choose a particular course when they believe it is the least costly way to realize their goals in a given situation or in an expected future situation (Kiser & Hechter 1998; Laitin 1998). Second, the context within which people in the U.S. make language

choices has changed (Bean & Stevens 2003). A continuous flow of immigrants (especially from Spanish-speaking countries), a globalizing economy, and the emergence of transnational communities that span national borders (Portes 2001) all alter the costs and benefits of English monolingualism and bilingualism. Demographic, social, political, and legal contexts are changing as well.

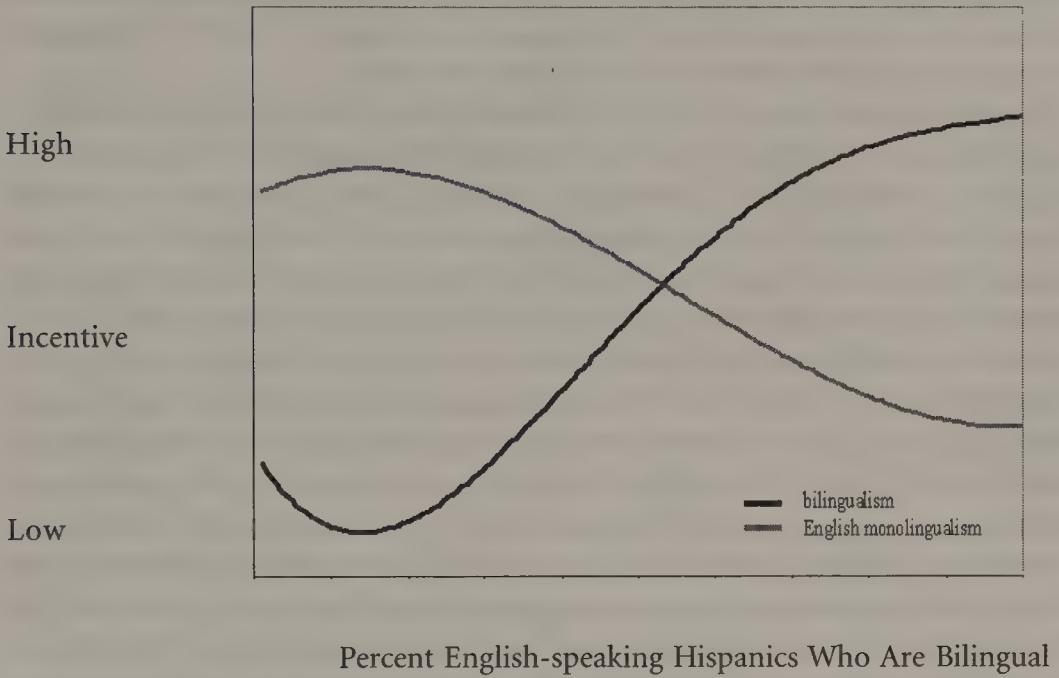
A Critical Mass Model of Bilingualism

Since the primary value of language is communicative, speaking a particular language is valuable to an individual only to the extent that others nearby speak the same language (Stevens 1992). Modeling individual language choice thus requires modeling dependence among individuals. “Tipping” and related critical mass theories (Granovetter 1989; Schelling 1978; see also Coleman 1964) provide a useful frame for exploring the structure of preferences and the dynamics of language choice. Tipping models assume that individuals have different preferences. But when enough people take the same action, their collective choice becomes part of the context within which others choose. This means that the payoff (benefits-costs) of a particular linguistic choice depends on how many other people have already made that choice.

Figure 1 represents a theorized relationship between the proportion of English-speaking Hispanics who are bilingual (the x-axis) and the social-structural incentive for bilingualism (as opposed to English monolingualism) (the y-axis). Toward the far left on the x-axis, where there are only a few bilingual individuals, the demand for their services as interpreters and translators for Spanish monolingual immigrants will be greater than where there are slightly more bilinguals in an area. Thus the diagram shows a somewhat higher incentive for bilingualism when the percent bilingual is near zero than when it begins to rise. At the point where the incentive is lowest, bilingualism makes little sense. Absent an individual-level motive (e.g., having a Spanish monolingual in the household, maintaining business or family connections in a Spanish-speaking country), most bilinguals will not actively maintain their Spanish or teach it to their children.

It is implicit in tipping models that individuals have different preferences. But when enough people take the same action, critical mass can exert its own effect — independent of the contextual factors mentioned above. A critical mass augments the group-level incentive for bilingualism and monolingualism in that one can add “lots of people are doing this” or “enough people are doing this to make it worthwhile” to the benefits attributed to a particular choice. This means that the incentive (benefits-costs) is different depending on how many other people have already chosen to maintain Spanish. For instance, an

FIGURE 1: A Tipping Model of Bilingualism



individual family might be more likely to want to maintain linguistic ties to their heritage if enough other Latinos have made a similar choice, and this has been expressed through institutionalized education programs (mostly in public and private schools). Such programs make it less costly for families to maintain Spanish.

In Figure 1, when the proportion of a population that is bilingual passes a tipping point, the contextual incentive for being bilingual exceeds that for being monolingual. Beyond this point the marginal gain in the incentive is greater than 1; that is, benefits increase more rapidly than the proportion bilingual in the population does. Bilingualism makes *collective* as well as individual sense.⁶

Figure 2 is also hypothetical. It illustrates another way to think about the tipping dynamic and a critical mass effect. The diagram shows two frequency distributions, A and B, in cumulative form (Schelling 1978). They represent — for any level of anticipated bilingualism (the x-axis) — the percentage of the Hispanic population for which this level is enough to justify Spanish maintenance because its benefits are greater than its costs (the y-axis). The curves begin on the vertical axis at a level that represents those who would keep their Spanish even if no one around them did. The curves rise to the right over a range of 0% to 100%, picking up everybody except those who would never consider bilingualism, regardless of the incentives. The 45-degree line is for reference. When a curve crosses the reference line, the observed level of bilingualism

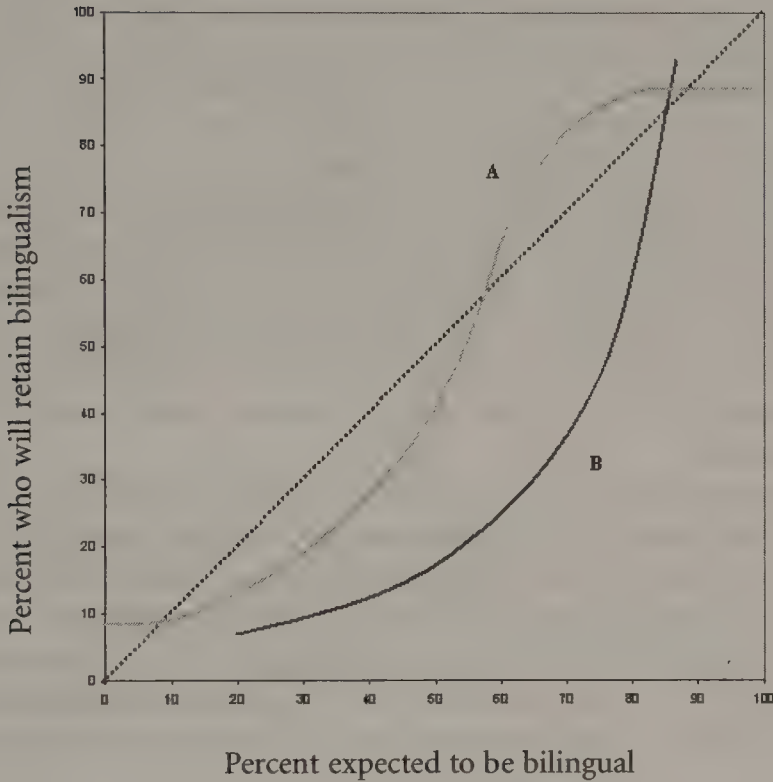
exactly meets the expectations of the people who have chosen bilingualism. A curve below the reference line means that the actual level of bilingualism is too low for some of the bilinguals. Their expectations have not been met; they will eventually shift to monolingualism. A curve above the reference line means the opposite: the actual level of bilingualism exceeded all of the bilinguals' expectations and bilingualism will increase over time.

For each person who would ever consider using two languages instead of just English, we can assign a value for "anticipated bilingualism": the minimum proportion of the Hispanic American population that would have to choose bilingualism in order for that person to do so also. Most people base their language decisions at least in part on what those around them are doing, or on what they expect others to do. A critical mass of others who make a given choice often adds to one's personal incentives to make the same choice. But the definition of a "critical mass" depends on one's own motives and preferences (Schelling 1978). The important thing is not necessarily how many people make the same choice, but rather that expectations regarding the quantity of people are, in reality, matched or exceeded. For example, people who retain (or even learn) Spanish because their jobs require it or in order to communicate with relatives probably will not be concerned about how many others in the community are doing the same thing. But those whose primary reason for bilingualism is a desire to maintain a Hispanic identity and an appreciation for Hispanic cultures will care a great deal. Here the question is whether enough people actively maintain Spanish to create a critical mass that will cause those on the fence to do likewise.

At the low end of hypothetical curve A in Figure 2, there is a stable equilibrium at about 8% bilingual. These are people who personally benefit from bilingualism even though most of the people around them are English monolinguals. Between about 8% and 57% bilingual, anticipations are not met. In this range, bilingualism is unstable. There is a tipping point at about 57% bilingual. Any small divergence upward or downward — a collective result of people reacting to changing individual and contextual circumstances — will either attract a few more people to Spanish maintenance or discourage them from it.

A critical mass effect is evident in the area where curve A is above the reference line. Everyone who is bilingual finds that there are more bilinguals than she or he anticipated. Bilingualism will increase because the "excess" bilinguals attract others for whom choosing bilingualism requires a larger group of bilinguals. This process continues until another threshold is reached, at around 88%. Even when the cumulative expectation is 100%, 88% will maintain bilingualism — and no one among that 88% will be disappointed by his or her choice. In contrast, hypothetical curve B depicts a situation in which bilingualism would be highly unlikely to persist. A critical mass effect does not obtain until almost everyone has made the same choice. Stable bilingualism

FIGURE 2: Critical Mass, or Not



would exist only in places where there are huge individual and contextual incentives.

These conjectural curves illustrate a key point in Schelling's (1978) discussion of critical mass models: different preference structures (aggregations of individual preferences) matter in terms of macrolevel outcomes. Within the framework of Schelling's theoretical work, it is not necessary or relevant to explain where these distributions come from, or why they are different across time or place. In the present discussion, however, these issues are key. While still allowing individuals to differ in their preferences, priorities, and personal characteristics, I aim to model area-specific, macrolevel context as it relates to people's collective language choices. These choices logically reflect individuals' preferences as well as their ideas about how many active bilinguals are enough to make bilingualism worth the effort.

The models above describe a dynamic process in which contextual changes alter the way the cumulative distribution of preferences looks. Data sufficient for actually tracking the process of change over time do not exist, but it is

possible to look for places where it has already occurred: areas in which a critical mass effect should augment the context within which individuals make language decisions. The analysis that follows will first establish metro area–level incentives for bilingualism and their relationship to the proportion of native-born or 1.5 generation⁷ Hispanic adults who are bilingual as opposed to English monolingual. Then it will explore the impact of macrolevel factors on microlevel language decisions and test for a critical mass effect. A critical mass point is estimated as the average proportion bilingual in metro areas where a tipping dynamic is already evident because the contextual incentive for bilingualism exceeds that for English monolingualism.

The first goal of this research is thus to identify a configuration of factors that influence the level of Spanish-English bilingualism in U.S. metropolitan areas — that is, macrolevel incentives for maintaining Spanish alongside English. I expect to find that the economic importance of Spanish-English bilingualism, the local or regional political context, and the status of Spanish and Spanish speakers will all be significant determinants of the level of bilingualism in an area.

It follows that individuals will be more likely to retain bilingualism in places where the macrolevel incentives for bilingualism substantially exceed those for monolingualism — that is, where the situation has “tipped” in favor of bilingualism. In such places, bilingualism makes collective as well as individual sense. I anticipate that positive incentives for bilingualism will also trigger a critical mass effect. Net of other contextual factors, individuals will be more likely to retain bilingualism in places where there is a critical mass of bilinguals.

Data, Variables, and Measures

The units of analysis in this study are metropolitan statistical areas (MSAs) or primary metropolitan statistical areas (PMSAs)⁸ and the native-born and 1.5 generation Hispanic adults (age 18-75) who live in them. Persons who did not report English fluency are excluded.

Data about general characteristics of the Hispanic population come from the 1990 census (file STF3C). Data about bilingualism or English monolingualism, bilinguals' relative socioeconomic status, and some contextual variables come from the 1990 1% PUMS (Ruggles et al. 1997). The variable “Hispanics' political influence” is Santoro's (1999) “index of Latino institutional resources”: a composite measure that encompasses voters and elected officials.⁹ Voting statistics come from the County and City Data Book (1988, 1994), with county-level figures aggregated up to the MSA/PMSA level when necessary. Table 1 provides additional details about the variables; Appendix A shows their correlations. Here I discuss how each is relevant to a test of the hypotheses outlined above.

OUTCOME VARIABLES

In the MSA/PMSA-level analysis, the dependent variable is the proportion of native-born or 1.5 generation Hispanics, fluent in English, who retain Spanish.¹⁰ In the individual-level analysis of the same population, the dependent variable is Spanish-English bilingualism. The census asks respondents which language they speak at home and how well they speak English.¹¹ Here, Spanish-English bilinguals as those who report that they speak Spanish at home *and* speak English “very well.” This measure by no means encompasses all bilinguals (e.g., Spanish speakers who are married to English monolinguals and thus do not speak Spanish at home). It also does not provide information about a respondent’s competency or literacy in Spanish. But it is the best indicator we have at the macro level and is well worth using (Bills 1989; Hart-Gonzalez & Feingold 1990; Solé 1990). Speaking Spanish at home reflects a preference for using the language and, where applicable, a desire for one’s children to know and use it.

MSA/PMSA-LEVEL INDEPENDENT VARIABLES

Modeling area-specific incentives for bilingualism involves four baseline variables reflecting demographic context: the proportion of an MSA/PMSA’s population that is Hispanic,¹² the proportion of Hispanics who are foreign-born, the degree to which Hispanics are clustered within particular neighborhoods, and location in California.

The most obvious factor to influence Spanish retention is the presence of other speakers in one’s area of residence (Serauf 1999; Stevens 1992). Without a community of speakers — or at least of people for whom the Spanish language constitutes a part of a shared cultural heritage — it is improbable that many people who are fluent in English will actively maintain Spanish. Equally clear is that foreign-born Hispanics — even those who speak English well — are very likely to use Spanish in their daily lives.¹³ We would expect to find more bilingualism in metro areas where a relatively large portion of the Hispanic population is foreign-born, because immigrants expand the community within which it is useful or desirable to speak Spanish. Furthermore, as Stevens (1992) points out, in such places Hispanics are more likely to marry other Hispanics. This could increase the prevalence of bilingual households.

The Absolute Clustering index (ACL) measures “the extent to which areal units inhabited by minority members adjoin one another, or cluster, in space.” A high degree of clustering indicates a racial or ethnic enclave (Massey & Denton 1988:293).¹⁴ Enclave communities tend to encourage the use of Spanish, at least during off-work hours. They also create commercial and service opportunities that require Spanish fluency (Guerra 1998; Lieberman 1970; Portes & Rumbaut 1996). Portes and Rumbaut (1996) show that, regardless of social class, the children of immigrants who live in ethnic neighborhoods are

TABLE 1: Description of Variables

MSA/PMSA-Level Analysis	Mean	S.D.	Range
<i>Dependent variable</i>			
Proportion native-born or 1.5 generation, English-speaking Hispanics who are bilingual	.50	.19	.07 – .93
<i>Independent variables</i>			
Ln proportion Hispanic	–2.67	1.15	–5.28 – –.06
Proportion Hispanic adults who are foreign-born	.47	.20	.04 – .91
Absolute Clustering index (ACL) for Hispanics	.14	.14	.00 – .76
California	.14	—	0/1 (1 = yes)
Bilingual Hispanic adults' mean income:English monolingual Hispanic adults' mean income	1.09	.42	.44 – 3.85
Bilingual Hispanic adults' mean SEL:English monolingual Hispanic adults' mean SEL	1.55	1.31	.51 – 8.36
Hispanic status composite	.67	.10	.46 – .91
Hispanics' political influence	1.45	2.39	–.90 – 10.85
GOP presidential votes in 1984 and 1992 high	.29	—	0/1 (1 = yes)
GOP presidential votes in 1984 and 1992 medium or low (reference category)	.71	—	0/1 (1 = yes)
Official English referendum	.30	—	0/1 (1 = yes)

Note: There are 136 MSA/PMSAs in the study. An additional 135 are not in the study because they are less than 0.5% Hispanic.

TABLE 1: Description of Variables (Continued)

Individual-Level Analysis of Native-Born and 1.5 Generation Hispanic Adults Living in MSAs/PMSAs			
	Mean	S.D.	Range
<i>Dependent variable</i>			
Spanish-English bilingualism	.58	—	0/1 (1 = yes)
<i>Independent variables</i>			
Spanish monolingual in household***	.09	—	0/1 (1 = yes)
1.5 generation membership	.02	—	0/1 (1 = yes)
Age	34.48	13.48	18–75
Sex	.49	—	0/1 (1 = male)
Educational attainment (17 categories)	9.91	2.56	1 (no school completed) – 17 (doctoral degree)
Puerto Rican	.12	—	0/1 (1 = yes)
Cuban	.02	—	0/1 (1 = yes)
Mexican or other national origin (reference category)	.86	—	0/1 (1 = yes)
<i>Contextual variables</i>			
Ln proportion Hispanic	–1.64	.89	–5.28 – –.06
California	.37	—	0/1 (1 = yes)
Bilingual Hispanic adults' mean SEI:English monolingual Hispanic adults' mean SEI	1.77	1.35	.51 – 8.36
Hispanics' political influence	2.71	2.21	–.90 – 10.85
Critical mass of bilinguals (> 64%) in MSA/PMSA of residence	.33	—	0/1 (1 = yes)
Proportion native-born bilinguals	.57	.17	.07 – .93
(N = 38,395)			

very likely to become bilingual adults, whereas those who do not usually become English monolinguals. I expect the ACL index to be positively related to the prevalence of bilingualism in a metro area.

The marker for California is a control for the difference between the Hispanic population there versus that in the rest of the country. There are more Hispanics in California whose families have been in the U.S. for a long time (López & Stanton-Salazar 2001).¹⁵ Thus, despite high levels of bilingualism, there is a disproportionate number of English monolingual Hispanics in the state.¹⁶

How do economic incentives and social context shape language decisions? Bilingualism is often a benefit to workers in neighborhoods, regions, or occupational areas where more than one language is regularly spoken. The extent to which this economic benefit exists, and translates into good jobs and high incomes, should influence the prevalence of bilingualism. Overall, however, Spanish-English bilinguals in the U.S. earn less than English monolinguals do. Basing their figures on the 1990 census, Chiswick and Miller (1997) report a disadvantage of around 12% for the native-born and 20% for the foreign-born. In a study of intergenerational transmission of Spanish, López (1982) shows evidence of the same pattern, but he also discusses a secondary pattern in which high educational and economic achievement, Spanish maintenance, and English competence are all positively associated. This trend tended to be "submerged" in the broader association between low socioeconomic status and the continued use of Spanish (Solé 1990). López's work suggests that bilingualism will not be an economic disadvantage in every case. There may be more bilingualism in areas where the disadvantage is lower than average, does not exist at all, or is reversed. To test this proposition, I employ ratios that reflect bilinguals' and English monolinguals' relative income and their Duncan socioeconomic indicator (SEI) score.¹⁷

Clearly, bilingualism's payoffs encompass more than real or perceived economic advantages. The social status and influence of Hispanics in a given area should also have some bearing on the desire to maintain a distinct identity by retaining or becoming fluent in Spanish. The status measure here is a composite of Hispanics' mean education, income, and SEI relative to non-Hispanics'. The measure of political influence is a state-level index of the percentage of registered voters and the percentage of legislators who are Hispanic. The former indicates potential political strength; the latter is the most widely used indicator of a group's position in the political system (Browning, Marshall & Tabb 1984). I expect to find a positive relationship between Hispanics' status and political influence and the proportion of English-speaking Hispanics who are bilingual.

Two measures reflect potential disincentives for bilingualism. The first, average proportion of Republican votes in the 1984 and 1992 presidential elections, implies a social and political climate that strongly supports a one-

way model of assimilation. The second marks four states — Arizona, California, Colorado, and Florida — in which Official English laws were passed via referendum vote after having failed in the state legislature.¹⁸ While there is no evidence that voters in these states differ significantly from other voters in terms of their general cultural orientation, the initiative process may allow voters to express their sentiments — for example, to react against a change in “the prevailing pattern of language usage” (Citrin et al. 1990:541). Or, as Frendreis and Tatalovich (1997) conclude, movement entrepreneurs who frame the language issue in patriotic and politically salient terms may enjoy more success in referendum states.

INDIVIDUAL-LEVEL INDEPENDENT VARIABLES

Someone who is fluent in English may speak Spanish at home for a practical reason: they live with someone who speaks only Spanish, or whose English is limited (Stevens 1992). The first variable in the individual-level models marks the presence of such a person. I expect it to show a strong, positive relationship to the probability of bilingualism. Also, since almost all members of the 1.5 generation presumably learned Spanish as children, a marker for 1.5 generation membership is included as a control.

Age could have a bearing on individual-level language outcomes in several ways. It could be positively related to bilingualism because older people are more likely to have lived in a Hispanic enclave or to work in a Hispanic-dominated occupational sector (Bean & Tienda 1987). In addition, the Chicano movement may have influenced those who were middle-aged in 1990, and their children, to retain Spanish. Both of these possibilities are plausible. They support the inclusion of age in this analysis — but without a specific prediction attached.

I include gender in the analysis because many studies of language proficiency and usage reveal gender-specific patterns. For instance, Portes and Rumbaut (2001) found that bilingualism is more common among second-generation girls than boys. They note that girls are often more sheltered and thus spend more time at home, where a non-English language is used. Furthermore, women are traditionally viewed as keepers and transmitters of the symbolic aspects of Hispanic culture, such as songs and religious rituals (Hondagneu-Sotelo 1993; Peña & Frehill 1998; Rodríguez 1999). Fulfilling this role could promote more Spanish retention among women than among men.

It is clear that education in the U.S. promotes English proficiency (Carliner 2000) and, in most cases, English monolingualism. Alba et al. (2002) found that parents' education decreases the probability that second- and third-generation Chinese and Latino children will be bilingual. Stevens (1992) found that the probability of bilingual maintenance among U.S.-born adults with a non-English first language decreases with education. Lieberman (1970) found that

educational attainment and bilingualism in Canada are positively associated among people whose mother tongue is French, but that bilingualism did not vary at all by education among native English speakers: "Indeed, bilingualism among the least educated French is more frequent than bilingualism among the college-educated component of the English-mother-tongue group" (26). Applied to this analysis, these findings suggest that there will be a negative relationship, or no relationship, between education and bilingualism.

I include national origin markers¹⁹ because the meaning and process of assimilation is not the same for all groups. The possibility and prevalence of regular travel between the U.S. and one's country of origin or heritage will influence the degree to which linguistic assimilation is an additive process rather than one which replaces Spanish with English. This reasoning applies strongly to Puerto Ricans, for whom there are no legal barriers to entering or leaving the fifty states. A group's status may also influence the relative advantage its members find in following the traditional model of assimilation or in taking an alternative path. As Fernández Kelly and Schauffler's (1996) work reveals, low-status group membership could be an incentive to "forget" that group's characteristics. López's (1999) research lends additional support to this hypothesis. His findings lead to the prediction that, among immigrant youths who follow a pattern of segmented assimilation into inner-city subcultures (in this case becoming part of ethnic gangs), "all these gang members will be banging in English" (218). In contrast, belonging to a group that enjoys high status within the larger community could provide extra incentives for maintaining the characteristics of that group (e.g., bilingualism). This is likely the case for Cubans. The above leads to the expectations that the probability of bilingualism will differ by national origin (cf. Bean & Tienda 1987) and will be higher among Puerto Ricans and Cubans than among Mexicans and other Hispanics.

Elements of the best-fitting MSA/PMSA-level model are included in the individual-level analyses in order to capture the context within which individuals make language decisions. A critical mass of bilinguals in a metro area is estimated to be the average level of bilingualism in places where more than half of the native-born/1.5 generation population is bilingual. It is assumed that contextual incentives in these places have "tipped" in favor of bilingualism. In a dynamic model, the rise in bilingualism could generate a critical mass effect as described in the discussion of Figure 2. The point above which a critical mass effect could be expected is estimated as the average level of bilingualism in these places, setting the critical mass point above the volatile tipping point.

Analysis and Findings

METRO AREAS

Table 2 reports the results of an OLS regression analysis of Spanish-English bilingualism in U.S. metropolitan areas. Models 1-4 account for contextual, economic, and status variables; Models 4 and 5 incorporate political dynamics.²⁰

Models 1 and 2 show the expected influence of size of the Hispanic population and foreign-born proportion thereof. Considered together with these two factors, clustering exerts no additional effect.²¹ This finding is surprising and should be viewed with caution due to the high correlation of LN proportion Hispanic and the ACL ($r = .73$).

In model 3, bilinguals' relative income is not significant,²² but bilingual Hispanics' socioeconomic status relative to that of English monolingual Hispanics is. This suggests that a visible concentration of bilingual professionals in a community contributes to Spanish maintenance there. In contrast, model 4 shows that the general status of Hispanics (regardless of their language usage) is not significantly related to the level of bilingualism in an area.²³ Hispanics' political resources, however, are related. This could indicate that positive group representation encourages the preservation of traits that distinguish the group in a way that individual group members' achievements do not.

Model 5 adds measures of the broader political context. There appears to be no relationship between a higher-than-average proportion of Republicans and the prevalence of bilingualism in an area. While a bit surprising, this finding lends additional support to the claim that the issue of language usage in the U.S. cuts across political cleavages (Citrin 1990; Citrin et al. 1990; Frendreis & Tatalovich 1997). Referenda in favor of Official English laws are also nonsignificant. This result concurs with other research. For example, Citrin (1990) documents that proponents of these laws frame their message in terms of patriotism, not intolerance. People who favor them often share a characteristic that Citrin et al. (1990) call "Americanism" — believing in God, trying to get ahead, and defending the country. They think of Official English in terms of national unity — not necessarily in terms of a subtractive model of immigrant assimilation or an unchangeable view of American identity.

To apply the critical mass model, I infer three things: (1) the level of bilingualism in an MSA/PMSA reflects contextual incentives for it, (2) the incentive structure for English monolingualism is the inverse of that for bilingualism, and (3) in places where bilingualism is more prevalent than English monolingualism, a linguistic tipping dynamic that favors bilingualism is already at work. Appendix B lists the 64 metro areas where this is the case, with descriptive statistics. On average, the actual bilingual proportion of the English-speaking Hispanic population in these MSA/PMSAs is .66. In the

TABLE 2: Coefficients for Regression of the Proportion of Spanish-English Bilinguals among Native-Born and 1.5 Generation Hispanic Adults in U.S. MSAs/PMSAs, 1990

	Model 1	Model 2	Model 3	Model 4	Model 5
Ln proportion Hispanic	.114*** (.011)	.123*** (.015)	.112*** (.014)	.079*** (.018)	.084*** (.020)
Proportion foreign-born Hispanics		.168** (.055)	.096# (.054)	.133* (.056)	.128* (.057)
Hispanic clustering		.198 (.111)	-.021 (.112)	-.052 (.110)	-.024 (.114)
California		-.202*** (.034)	-.140*** (.034)	-.128*** (.033)	-.130*** (.040)
Bilinguals' income: English monolinguals' income			.006 (.025)		
Bilinguals' SEI: English monolinguals' SEI			.049*** (.010)	.051*** (.010)	.050*** (.010)
Hispanic status composite				-.187 (.129)	-.162 (.142)
Hispanics' political influence				.016** (.006)	.013* (.007)
High GOP voting					.031 (.023)
Official English referendum					.003 (.031)
Constant	.806*** (.031)	.748*** (.055)	.699*** (.057)	.685*** (.090)	.688*** (.092)
Adjusted R ²	.451	.593	.651	.668	.667
F	111.787***	50.122***	42.913***	39.732***	31.098***

(N = 136)

Note: Standard errors are shown in parentheses.

* p < .05 ** p < .01 *** p < .001 (two-tailed tests)

individual-level analysis that ensues, I will use this proportion bilingual as an estimator of critical mass — a point above which it makes *collective* sense to be bilingual.

INDIVIDUALS

Table 3 reports the results of a logistic regression analysis of bilingualism among a large sample of native-born and 1.5 generation, English-speaking Hispanic adults who live in U.S. metro areas. The factor most strongly associated with

bilingualism is a Spanish monolingual in the household. This is an important control, though it is only relevant for 9% of the people in this study.

Model 2 adds a block of individual characteristics: age, sex, and educational attainment. Bilingualism is slightly more prevalent among older adults. This may reflect the importance of Spanish maintenance in the past, when one-way assimilation was really not an option for anyone who did not look white.²⁴ As expected, women are slightly more likely than men to be bilingual. Education's effect is negative; each increasing degree of education diminishes the odds of bilingualism by about 8%. This finding supports the conclusions of other research on non-English-language maintenance in the U.S. (Bills 1989; Fishman 1984; Veltman 1983). The authors of these studies discuss their findings in light of the fact that the level of support for foreign-language maintenance in U.S. schools is generally low and foreign-language retention or learning is not a priority. A closer look at the data also suggests that an interpretation of the negative relationship between educational attainment and bilingualism should emphasize that bilingualism is much more prevalent among native-born Hispanic adults with less than a high school education.²⁵

Model 3 adds ethnic origins. Puerto Ricans and Cubans are more likely to be bilingual than are persons from other Hispanic roots.²⁶ People of Puerto Rican origin are apt to retain strong ties to Puerto Rico because of geographic proximity and a tradition of return migration. In the case of U.S.-born Cubans, very high geographic concentration combined with positive group identification and relatively abundant community resources (such as bilingual schools) is likely the most salient explanation of Spanish retention. Nelson and Tienda (1986) also present some evidence that native-born Cuban Americans are more likely than other Latino groups to "lose" their ethnicity by not identifying as Hispanic on the census. To the extent that English monolinguals are choosing not to call themselves Hispanic, we would expect a higher concentration of bilinguals among those who do.

Models 4 and 5 show that area-level context does add substantially to what household- and individual-level factors allow us to predict.²⁷ While other characteristics still matter, the macrolevel context exerts an independent influence on the choice of which language(s) to maintain and use.

Does critical mass figure in as well? Model 6 shows that it does. Living in a place where there is a critical mass of bilinguals increases the odds of bilingualism by almost 50%, *regardless of the other (dis)incentives for bilingualism in a specific metro area*. This finding is key in that it provides empirical support for using models such as this to study the interplay between macro- and microlevel language outcomes.

To test the possibility that the critical mass effect is simply a crude reflection of a linear relationship between the MSA/PMSA proportion bilingual and individual bilingualism, I substituted MSA/PMSA proportion bilingual in 1990 and 1980 for "critical mass" in model 6, including quadratic and cubic terms,

TABLE 3: Odds Ratios for Logistic Regression of Spanish-English Bilingualism among Native-Born and 1.5 Generation Hispanic Adults Living in U.S. MSAs/PMSAs

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Spanish monolingual in household	7.75***	8.36***	8.34***	7.66***	7.50***	7.54***
1.5 generation membership	1.68***	1.67***	1.63***	1.45***	1.40***	1.41***
Age		1.02***	1.02***	1.02***	1.02***	1.02***
Sex (1 = male)		.87***	.87***	.88***	.88***	.88***
Educational attainment		.92***	.92***	.92***	.92***	.92***
Puerto Rican			2.01***	2.09***	1.98***	1.90***
Cuban			1.64***	1.51***	1.14	1.15
<i>MSA/PMSA-level contextual variables</i>						
Ln proportion Hispanic			1.91***		1.44***	1.30***
California			.42***		.59***	.73***
Bilinguals' SEI:English monolinguals' SEI					1.32***	1.26***
Hispanics' political influence					1.07***	1.07***
Critical mass of bilinguals in MSA/PMSA					1.49***	1.49***
-2 log likelihood	53,745	52,652	52,172	49,129	48,749	48,629
Chi-square	2262***	3356***	3835***	6878***	7264***	7378***
(N = 38,395)						

Notes: Immigrants who arrived in the U.S. at age 10 or younger are included as part of the 1.5 generation. Monolingual Spanish-speakers are excluded from the analysis.

* p < .05 ** p < .01 *** p < .001 (two-tailed tests)

which are both significant (Appendix C). To explore this relationship graphically, I divided the cases by 1990 MSA/PMSA proportion bilingual, in five equal groups, and separately included each group in model 6. The by-group odds ratios are plotted in Figure 3.²⁸ It shows a steep, linear relationship at low MSA/PMSA levels of bilingualism and almost no relationship at middle levels. The curve tips sharply between the third and fourth groups (52-62% and 63-71% bilingual), and levels again after that. This is consistent with the estimated critical mass point of .66, around which “lots of other people are doing it” becomes a contextual incentive for maintaining Spanish.

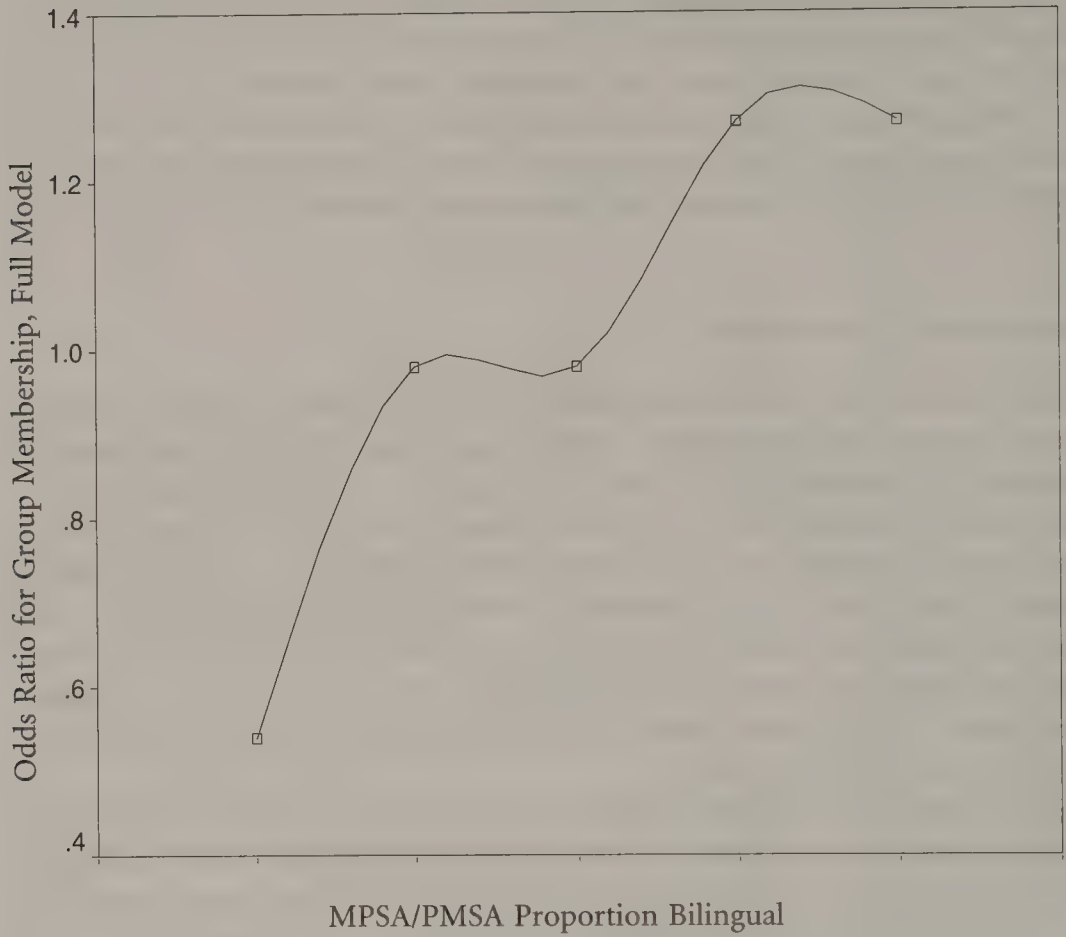
Discussion and Conclusion

Though the cross-sectional models used here do not allow for firm conclusions about intergenerational patterns of language usage, this study has specified contextual, economic, social, and individual circumstances under which bilingualism is most likely to be a stable feature of American identity rather than a step along the way to English monolingualism. The analysis has demonstrated a strong relationship between macrolevel incentives and individual choices. There is more bilingual maintenance in places where bilinguals have high status and Hispanics have political power. There is also a point above which collective behavior has an independent effect on individuals' choices — a critical mass effect.

A limitation of this work is that cross-sectional data do not permit an assessment of the extent to which a critical mass of bilinguals encourages bilingual maintenance, as opposed to attracting bilingual Hispanics to a particular area. Further research with longitudinal data will make it possible to separate these factors and to establish the causality of some other relationships I have described, particularly those involving the macrolevel variables. A longitudinal study would also be useful in refining the models and findings presented here by looking at contextual changes and processes of linguistic assimilation among groups of Hispanics in various places. It would be especially informative to examine the circumstances in metro areas under which the macrolevel models presented here do *not* do a good job of predicting the actual level of bilingualism (see Appendix B).

Theories and research about immigrant incorporation into American society often focuses only on the acquisition of or transition to English. In doing so, they do not assign any value to immigrants' linguistic capital, nor do they consider the possibility of stable bilingualism among the native-born. As Bean and Stevens (2003) argue, “[A] more nuanced understanding of processes of adaptation and integration should consider uncoupling the two processes [of English acquisition and mother-tongue shift] and the impact of changes in the

FIGURE 3: MSA/PMSA Proportion Bilingual in Five Groups: The Relationship between Group Membership and Bilingualism



social and demographic contexts in which these processes occur” (170). This study is a step in that direction.

Finally, it should be noted that an additive model of assimilation implies change on the part of majority-language speakers. If the level of bilingualism is rising among a growing Hispanic population, the linguistic characteristics of the *whole population* of some areas are also changing. As the real and perceived benefits of bilingualism increase for Hispanics, they could increase for non-Hispanics as well. Research defining the demographic and social contexts within which bilingualism in English and Spanish could become a

common aspect of American identity would add another dimension to our understanding of the dynamics of language choice in the U.S.

Notes

1. Rumbaut's (2002) study uses data only from the San Diego survey site.
2. Documented concerns about linguistic unity date back to Benjamin Franklin's opposition to the use of German, which at one time was the native language of about a third of the residents of Pennsylvania. In 1900, about 4% of American schoolchildren were taught in German at least some of the time (Stewart 1993).
3. Quota laws (finalized in 1924) established national-origin quotas for immigrants from European countries based on the contribution of each nationality to the total U.S. population in 1910. Their main effect was to limit immigration from southeastern Europe. Immigration from the Western Hemisphere was unaffected, except that immigrants from European colonies in the Caribbean were able to enter under the quotas of the colonial powers. Asian immigration (except from the Philippines) had already been effectively banned before 1920.
4. Bangura and Muo (2001), Freeman (1998), and Lyons (1990) discuss the history of the BEA in much more detail. Linton (n.d.) and Salehyan (2002) examine campaigns to limit or end bilingual education, particularly California's proposition 227.
5. I use the designations "Hispanic" and "Latino" interchangeably.
6. Even when all English-speaking Hispanics are bilingual, the incentive for monolingualism never drops as low as the incentive for bilingualism at the left side of the x-axis because, unlike African or Asian Americans, Hispanic Americans can choose to "opt out" of their Hispanic identity. I owe this point to Dan Chiro.
7. Members of the 1.5 generation immigrated to the U.S. when they were ten years old or younger.
8. McAllen, Texas, is excluded because it is an anomalous case that unduly leverages the models. McAllen was 85% Hispanic in 1990, with 96% of the U.S.-born Hispanic adults bilingual.
9. The index is based on standardized and summed state-level measures of registered Hispanic voters in 1992 and the percentage of Hispanic legislators in 1985. Sources are the Census Bureau's 1992 Current Population Reports (earlier reports did not include registration rates for states with small Hispanic populations) and the NALEO Education fund.
10. Because the dependent variable is derived from PUMS data, the metro-area analysis is limited to MSA/PMSAs where at least 50 Hispanic adults who speak English very well were included in the sample. In the STF-3, this equates to places where the population is at least .5% Hispanic.
11. Stevens (1999) provides a thorough discussion of census language questions throughout the twentieth century.

12. "Proportion Hispanic" is logged to somewhat modify the influence of a few cases: large MSAs with extreme concentrations of Hispanics.
13. In 1990, 84% of foreign-born Hispanic adults who reported that they speak English well also reported speaking Spanish at home.
14. This index "expresses the average number of minority members in nearby areal units as a proportion of the total population in those nearby areal units", where distances between areal units are measured from their centroids (Massey and Denton, 1988:293-294). It varies from 0.0 to 1.0.
15. The 1990 census does not provide a way to directly measure length of U.S. ancestry beyond the first generation.
16. The same could potentially be true for other states that received many Mexican migrants in the early 1900s, especially Texas. But Texas differs from California in that (1) its long border with communities on both sides has historically encouraged seasonal, or even daily, passages rather than permanent settlement, and (2) for those who did migrate permanently in the early 1900s, Texas was often a first stop on the way to California. Immigration to Texas during the 1920s led to an average annual increase in the state's Hispanic population of 7.6%, whereas the average yearly gain in California was 20.4% (see Sánchez 1993:66, 254; Álvarez 1983). A marker for Texas included in earlier analyses was *positively* related to bilingualism among U.S.-born Hispanics but lost significance once measures reflecting Hispanics' status and influence were introduced.
17. Income, SEI, and status variables are expressed in relative, rather than absolute, terms to indicate local status (Frank 1985).
18. Previous models included controls for and MSA/PMSA's location within any state that had passed an Official English law in or before 1990. This did not contribute significantly to the analysis.
19. In the 1990 1% PUMS sample (weighted), Puerto Ricans comprise 12% of native-born or 1.5 generation Hispanic adults who are Spanish-English bilingual or English monolingual. Cubans comprise 2%. Mexicans (69%) and "other" Hispanics (17%) are the reference category.
20. "Hispanics' political influence" reflects both status and political influence.
21. This variable is retained in the final model because it improves the overall fit.
22. This is also the case when the SEI variable is not included.
23. This is also the case when bilinguals' SEI is removed from the model.
24. An additional test for cohort effects showed that native-born Hispanics who were over 45 years old in 1990 were about twice as likely to be bilingual as those who were 30 to 45.
25. When this group (which comprises 29% of the sample) is excluded, the negative relationship between educational attainment and bilingualism decreases to 3% per attainment level.

26. Bean and Tienda (1987) document a similar trend using 1980 PUMS data.
27. "Proportion foreign-born Hispanics" is excluded from these models because of a multicollinearity problem caused by its correlation with "Puerto Rican" and "Cuban." When these two variables are excluded and "proportion foreign-born Hispanics" is included, the coefficient for foreign-born Hispanics is 1.30 ($p < .001$) in model 5 and .99 (nonsignificant) in model 6, with poorer model fit.
28. The smoothed curve was drawn using the "spline" option in SPSS.

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APPENDIX A: Pearson Correlations for Variables in the Analyses

Metro Areas	NPBIL	LNHISP	PFBH	ACL	CA	BINCCOMP	BLSEICOM	HISSTAT	POLIT	GOPHI	OEREF
NPBIL (proportion native-born Hispanics who are bilingual)	1.00	.67***	.10	.61***	-.03	.06	.64***	-.49***	.53***	.04	.09
LNHISP (In proportion Hispanic)	.07***	1.00	-.08	.73***	.40***	-.04	.40***	-.65***	.71***	-.14	.36***
PFBH (proportion Hispanic adults who are foreign-born)	.10	-.08	1.00	.08	.08	-.07	.22**	-.06	-.32***	.04	.12
ACL (Absolute clustering index for Hispanics)	.61***	.73***	.08	1.00	.22**	.11	.57***	-.51***	.51***	-.17*	.14
CA (California)	-.03	.40***	.08	.22**	1.00	-.09	-.13	-.24**	.19*	-.12	.61***
BINCCOMP (bilinguals' income:English monolinguals' income)	.06	-.04	-.07	.01	-.09	1.00	.19*	-.07	.01	.19*	-.06
BLSEICOM (bilinguals' SEI:English monolinguals' SEI)	.64***	.40***	.22**	.57***	-.13	.19*	1.00	-.25**	.24**	-.01	-.004
HISSTAT (Hispanic status composite)	-.49***	-.65***	-.06	-.51***	-.24**	-.07	-.25**	1.00	-.36***	.02	-.01
POLIT (Hispanics' political influence)	.53***	.71***	-.32***	.51***	.19*	.01	.34**	.36***	1.00	.10	.25**
GOPHI (GOP votes in highest third of range)	.01	.14	.04	.17*	-.12	.19*	-.002	.02	.01	1.00	.03
OEREF (Official English law passed via referendum)	.09	.04***	.12	.14	.61***	-.06	-.004	-.01	.03**	.03	1.00

(N = 136)

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APPENDIX A: Pearson Correlations for Variables in the Analyses (Continued)

<i>Native-Born Hispanics</i>	BILING	SPANM	ONE.FIVE	AGE	SEX	EDUC	MEX	PR	CU	LNHISP	PFBH	CA	BLSEICOM	POLIT	CM	NP.BIL
BILING (Spanish-English bilingual)	1.00	.21***	.04***	.10***	-.03***	-.13***	.07***	.09***	.02***	.21***	.00	-.13***	.23***	.15***	.26***	.37***
SPANM (Spanish monolingual in household)	.21***	1.00	.05***	-.11***	.01	-.09***	.01	.04***	.03***	.10***	.09***	-.01**	.14***	.01	.10***	.13***
ONE.FIVE (1.5 generation membership)	.04*	.51***	1.00	-.01**	.00	-.29***	.00	.17***	.02***	.06***	.73***	.03***	.07***	-.01**	.03***	.05***
AGE	.09***	-.11***	-.10**	1.00	-.02**	-.14***	.07***	-.13***	-.06***	.03***	-.10***	.06***	-.07***	.08***	-.05***	-.05***
SEX	-.03***	.01	.00	-.02***	1.00	.02***	.00	.00	.00***	-.01	.01	.01**	-.01	.00	-.01*	-.01**
EDUC (educ attainment)	-.13***	-.09***	-.03***	-.14***	.02	1.00	-.10***	.01	.09***	-.05***	.05***	.02*	.02***	-.04***	-.03***	-.06***
MEX (Mexican)	.06***	.00	.00	.07***	.00	-.10***	1.00	-.56***	-.23***	.23***	-.27***	.23***	-.11***	.25***	-.09***	.03***
PR (Puerto Rican)	.09***	.04**	.02**	-.13***	.00	.01	-.55***	1.00	-.06***	-.16***	.34**	-.22***	.13***	-.30***	.18***	.09***
CU (Cuban)	.02***	.03***	.02***	-.06***	.00	.09***	-.23***	-.06**	1.00	-.02***	.17***	-.09***	.24***	-.09***	.07***	.07***
LNHISP (ln proportion Hispanic)	.21***	.10***	.060***	.03***	-.01	-.05***	.23***	-.16***	-.02***	1.00	.02***	.27***	.40***	.59***	.40***	.62***
PFBH (proportion Hsp. adults who are foreign-born)	.00	.09***	.07***	-.10***	.01	.05***	-.26***	.34***	.17***	.02***	1.00	.32***	.21***	-.48***	-.09***	.00
CA (California)	-.13***	-.01**	.03***	.06***	.01*	.02*	.23***	-.22***	-.09***	.28***	.31***	1.00	-.28***	-.05***	-.51***	-.32***
BLSEICOM (bilinguals SEI: English monolinguals' SEI)	.23***	.14***	.07***	-.07***	.00	.02***	-.11***	.13**	.24***	.40***	.21***	-.28***	1.00	.09***	.56***	.67***
POLIT (Hispanics' political influence)	.15***	.00	-.14**	.08***	.00	-.04***	.24***	-.30***	-.09***	.59***	-.48***	.05***	.09***	1.00	.27***	.46***
CM (critical mass bilinguals in MSA/PMSA of residence)	.27***	.10***	.03***	-.05***	-.01*	-.03***	-.10***	.18***	.07***	.40***	-.09***	-.51***	.56***	.27***	1.00	.78***
NP.BIL (proportion native-born bilinguals)	.34***	.13***	.05***	-.05***	-.01*	-.06***	.03***	.09***	.07***	.62***	.00	-.38***	.67	.43***	.78***	1.00

(N = 33,395)

* p < .05 ** p < .01 *** p < .001 (two-tailed tests)

APPENDIX B: Bilingualism > Monolingualism

MSA/PMSA	Proportion Bilingual
Abilene, TX	.61
Albuquerque, NM	.62
Allentown, PA	.59
Amarillo, TX	.82
Atlantic City, NJ	.60
Austin, TX	.67
Bakersfield, CA	.63
Bridgeport–Milford, CT	.63
Brownsville–Harlingen, TX	.93
Bryan–College Station, TX	.60
Chicago, IL	.61
Corpus Christi, TX	.86
Dallas, TX	.64
Daytona Beach, FL	.80
El Paso, TX	.87
Fayetteville, NC	.68
Fort Lauderdale–Hollywood–Pompano Beach	.55
Fort Myers–Cape Coral, FL	.65
Fresno, CA	.61
Galveston–Texas City, TX	.59
Grand Rapids, MI	.58
Greeley, CO	.57
Hartford, CT	.65
Houston, TX	.72
Killeen–Temple, TX	.71
Laredo, TX	.93
Las Cruces, NM	.73
Loraine–Elyria, OH	.64
Los Angeles–Long Beach, CA	.52
Lubbock, TX	.89
Merced, CA	.64
Miami–Hialeah, FL	.86
Midland, TX	.87
Modesto, CA	.51

APPENDIX B: Bilingualism > Monolingualism (Continued)

MSA/PMSA	Proportion Bilingual
Naples, FL	.86
New York, NY	.71
Norfolk, VA	.55
Norwalk, CT	.56
Odessa, TX	.79
Orange County, NY	.52
Orlando, FL	.66
Oxnard–Ventura, CA	.52
Philadelphia, PA–NJ	.59
Phoenix, AZ	.59
Riverside–San Bernadino, CA	.51
Rochester, NY	.53
Salem, OR	.67
Salinas–Seaside–Monterey, CA	.59
San Antonio, TX	.76
San Diego, CA	.51
Santa Fe, NM	.69
Springfield, MA	.79
Stamford, CT	.53
Topeka, KS	.55
Trenton, NJ	.56
Tucson, AZ	.71
Tyler, TX	.63
Visalia–Tulare–Porterville, CA	.67
Waco, TX	.57
West Palm Beach–Boca Raton–Delray Beach	.68
Wichita Falls, TX	.69
Worcester, MA	.72
Yakima, WA	.72
Yuma, AZ	.68
Average	.66

APPENDIX C: Odds Ratios for Logistic Regression of Spanish-English Bilingualism among Native-Born and 1.5 Generation Hispanic Adults Living in U.S. MSAs/PMSAs, with MSA/PMSA Proportion Bilingual, 1990 and 1980

1990		
Spanish monolingual in the household	7.41***	7.46***
1.5 generation membership	1.42***	1.43***
Age	1.02***	1.02***
Sex (1 = male)	.87***	.88***
Educational attainment	.92***	.93***
Puerto Rican	1.82***	1.97***
Cuban	1.23***	1.38***
Ln proportion Hispanic	.95*	.94*
California	1.04	1.07
Bilinguals' SEI:English monolinguals' SEI	1.06***	.94*
Hispanics' political influence	1.04***	1.04***
MSA/PMSA proportion bilingual	58.19***	1,123,213***
Proportion bilingual ²		.00***
Proportion bilingual ³		2,971,540***
-2 Log likelihood	47.932	47,856
χ ²	8075***	8151***
(N = 38,395)		
1980		
Spanish monolingual in the household	7.48***	7.51***
1.5 generation membership	1.43***	1.45***
Age	1.03***	1.03***
Sex (1 = male)	.86***	.87***
Educational attainment	.93***	.93***
Puerto Rican	1.82***	1.88***
Cuban	1.17***	1.25***
Ln proportion Hispanic	.93*	.90*
California	.98	1.05
Bilinguals' SEI:English monolinguals' SEI	1.20***	1.13*
Hispanics' political influence	1.08***	1.08***
MSA/PMSA proportion bilingual	22.52***	292,729***
Proportion bilingual ²		.00***
Proportion bilingual ³		182,037***
-2 Log likelihood	43,968	43.925
χ ²	6946***	6988***
(N = 34,948)		

Note: MSA/PMSA that did not exist in 1980 or for which the 1980 1% PUMS contains fewer than 50 native-born/1.5 generation Hispanic adults are omitted from the 1980 analysis.

* p < .05 ** p < .01 *** p < .001 (two-tailed tests)

Friendship Networks of Mobile Adolescents*

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Abstract

Data from almost 13,000 respondents to the National Longitudinal Study of Adolescent Health (Add Health) are used to examine the impact of residential and school mobility on the structure of adolescents' friendship networks and the degree to which parents know their children's friends and the parents of those friends. Recent movers or school changers tend to have small, dense networks, and to occupy less central and less prestigious positions in their networks, and the parents of mobile adolescents are less knowledgeable about members of their children's networks. These effects appear to persist for several years. The level of mobility in the school often has an independent impact on the character of adolescents' friendship networks; students in high-mobility schools have smaller networks and receive comparatively few friendship nominations, and their parents are less likely to know their children's friends and those friends' parents. The negative impact of individual mobility on some dimensions of adolescents' friendship networks is attenuated by high levels of mobility in the adolescents' schools. The impact of mobility on some network characteristics is especially pronounced among older adolescents and among girls.

Changing residences and changing schools are frequent events in the lives of American children, and these dual processes have important ramifications for

** This research was supported by a grant to the authors from the National Science Foundation (SBR-0131876) and by grants to the University at Albany Center for Social and Demographic Analysis from the National Institute of Child Health and Human Development (P30 HD32041) and the National Science Foundation (SBR-9512290). We thank Erick Chavez and Amy Lutz for research assistance, and Douglas Downey, James Moody, Richard Udry, and several anonymous reviewers for helpful comments and advice. This research uses data from the Add Health project, a program project designed by J. Richard Udry (PI) and Peter Bearman, and funded by grant P01-HD31921 from the National Institute of Child Health and Human Development to the Carolina Population Center, University of North Carolina at Chapel Hill, with cooperative funding from 17 other agencies. Persons interested in obtaining data files from The National Longitudinal Study of Adolescent Health should contact Add Health, Carolina Population Center, 123 West Franklin Street, Chapel Hill, NC 27516-2524 (<http://www.cpc.unc.edu/addhealth>). Direct correspondence to Scott J. South, Department of Sociology, University at Albany, SUNY, Albany, NY 12222. E-mail: s.south@albany.edu.*

youth adjustment and development. Americans change residence more often than do citizens of other countries and these differences are equally pronounced, if not more so, among children and adolescents as among adults (Long 1992). Although rates of residential mobility have been declining in the U.S. over recent decades (Fischer 2002), they remain quite high in comparative perspective. Moreover, despite historical declines in residential mobility, the rate at which U.S. children change schools has been increasing over time, largely as a consequence of voluntary movement between public and private schools (Swanson & Schneider 1999).

A burgeoning, multidisciplinary literature has begun to explore the impact of residential mobility, migration, and school changes on the developmental trajectories of children and adolescents. Although the observed strength of the associations varies across studies and outcomes, recent investigations have reported significant effects of residential mobility on poor academic performance (Ingersoll, Scamman & Eckerling 1989; Pribesh & Downey 1999), school drop-out and low educational attainment (Astone & McLanahan 1994; Entwisle, Alexander & Olson 1997; Hagan, MacMillan & Wheaton 1996; Haveman, Wolfe & Spaulding 1991; McLanahan & Sandefur 1994; Rumberger & Larson 1998; Swanson & Schneider 1999; Teachman, Paasch & Carver 1996), drug and alcohol abuse (Hoffman & Johnson 1998), risky sexual activity, including early sexual debut and having numerous sex partners (Baumer & South 2001; Stack 1994), premarital childbearing (South & Baumer 2000; Sucoff & Upchurch 1998), later-life cohabitation (Myers 2000), and myriad behavioral problems (Pittman & Bowen 1994; Raviv et al. 1990; Simpson & Fowler 1994; Tucker, Marx & Long 1998; Wood et al. 1993).

In similar fashion, social scientists have also begun to examine the consequences of school mobility and school transitions for adolescent development. The evidence is not entirely consistent (e.g., Proctor & Choi 1994), but many studies report that even normal school transitions (e.g., from elementary to junior high school, and from junior to senior high school, within the same district) are associated with reduced academic performance, social competence, and self-esteem (Fenzel 1989; Gutman & Midgley 2000; Lord, Eccles & McCarthy 1994; Roeser, Eccles & Freedman-Doan 1999; Seidman et al. 1996; Simmons, Black & Zhou 1991; Simmons et al. 1987).

Although the mechanisms linking geographic and school mobility to adolescent behavior are not well understood, theoretical discussions of this issue frequently focus on the role of friendship networks (South, Lutz & Baumer 2001). The friendship networks of mobile adolescents are thought to be less complete, less satisfying, and less conducive to prosocial behavior than are the networks of residentially stable youth. Yet, few studies have rigorously and systematically explored the impact of residential mobility and school transitions on the structure of adolescents' social networks. The purpose of this article is to examine this connection. Drawing on the first wave of data from the Na-

tional Longitudinal Study of Adolescent Health (hereafter *Add Health*), we examine differences between mobile and nonmobile adolescents in the size and structure of their peer networks, and in the degree to which parents know key members of their children's friendship networks. Special attention is given to variability in the effects of residential mobility and school transitions across key sociodemographic attributes, such as age and sex, and by the level of mobility in the school context. Here we ask, for example, whether the effect of *individual* residential and school mobility on network structure varies by the percentage of newcomers in the adolescents' schools. In terms of the characteristics and interconnectedness of one's close associates, is it better to be a "new kid in town," where many others are also relative newcomers, or is it better to enter a "stable" social environment, where most of one's schoolmates are long-term residents? We conclude with a discussion of the potential implications of our results for research that examines the effect of residential mobility and school transitions on adolescent social dislocations and problem behavior.

Theoretical Framework

From a broad Durkheimian perspective, geographic mobility is thought to disrupt networks of social relations, at least in the short-term, as interpersonal connections in areas of origin are severed when individuals move away. Considerable time elapses before new relationships are established in these migrants' areas of destination, and in the interim period migrants suffer from a deficit of social integration and attendant sources of support and control. In the extreme, Park (1928) characterizes such migrants as "marginal men," disjoined and set adrift between groups and cultures at origin and destination. This rather intemperate view has given way to a more nuanced perspective on migration and geographic mobility, one that recognizes that migrants often have friends or relatives in the receiving areas who cushion their arrival (Tilly & Brown 1974), that migrants frequently maintain strong social and economic ties to individuals at their area of origin (Massey et al. 1987), that advanced communication and transportation systems enable social associations to be maintained over long distances (Litwak 1960), and that migration often confers material benefits, such as higher income and better housing (Fischer 2002). At the same time, however, residential mobility continues to be seen as a disruptive force both for individuals, especially youth (Hagan, MacMillan & Wheaton 1996) and for the communities and neighborhoods that they inhabit (Crutchfield, Geerken & Gove 1982; Ross, Reynolds & Geis 2000; Sampson, Raudenbush & Earls 1997).

How might these processes play out in the context of adolescent mobility between communities and schools? Virtually all studies of youth social development point to the paramount role of peer social networks, broadly

defined, in shaping adolescent behavior. This is particularly true for ethnographic studies of preadolescent (Adler & Adler 1998) and adolescent (Anderson 1990; Eckert 1989) culture, identity, and behavior. The general conclusion of these studies is that adolescent behavior is shaped to a significant degree by the behavior of significant peers in their social networks. However, relatively little is known about the impact of residential and school mobility on adolescent peer social networks. We begin by describing the potential effects of adolescent mobility on two broad characteristics of their friendship networks: (1) their size, structure, and position, and (2) the degree to which parents' know members of their children's friendship cliques.

Network Size, Structure, and Position

Perhaps the most obvious difference to be expected between the friendship networks of mobile and nonmobile youth is the size of these networks. Newcomers to communities and schools have had little time to develop friendships, and are thus likely to report having fewer friends in school than their counterparts who have resided longer in the community or have attended the school for a longer period of time. For similar reasons, recent in-movers are probably less likely to be identified as friends by other students in their school. In the language of social network analysis, mobile youth are hypothesized to have smaller ego-send networks (out-degree) and smaller ego-receive networks (in-degree) than their residentially stable counterparts. In the extreme, mobile youth may be especially likely to be socially isolated, neither sending nor receiving any friendship ties to peers in their new destination. Although not applying a systematic and rigorous social-network approach, small-scale studies by developmental psychologists generally find that, compared with their residentially stable counterparts, mobile youth report having fewer close friends and less personal intimacy with the friends they do have (Hendershott 1989; Humke & Schaefer 1995; Vernberg 1990; Vernberg et al. 1992).

But differences in the friendship networks of mobile and nonmobile adolescents are likely to extend beyond the sheer size of these networks. For example, it also seems likely that mobile adolescents' friendship networks will be denser than the networks of residentially stable youth. That is, mobile adolescents' friends are likely to have friendship ties among themselves. These "new kids in town" are perhaps especially likely to make new friends by being introduced by their slightly less new friends; thus, the networks of these mobile youth are apt to be disproportionately composed of friends who are already friends with one another.

Mobile and nonmobile youth are also apt to differ in their positions within their respective friendship networks. As relatively new arrivals to their

communities and schools, mobile adolescents are probably less likely to identify another classmate, or be identified *by* a classmate, as a best friend. Becoming best friends doubtlessly takes more time than simply becoming friends, and recent in-movers are obviously disadvantaged on this score. Moreover, even when mobile youth do select a peer as a best friend, we anticipate that this tie is comparatively less likely to be reciprocated (i.e., for the identified best friend to also select ego as a friend). To the extent that in-movers enter social settings in which most members have already established close associations with others, they must compete for best friend status with peers who are already enmeshed in a web of group affiliations. In short, the best friend identified by these in-movers will have already been taken as a reciprocated friend by someone else.

Residential mobility and school transitions are likely to be related to the degree of adolescents' centrality and prestige within their networks. Centrality, specifically local centrality, essentially captures the degree to which an actor is connected to others in the network (Bonacich 1987; Scott 2000). Occupying a central network position involves being well connected to others (even holding constant the size of the network). Mobile adolescents are likely to be on the sociometric fringe of the networks they join because their relative newness effectively prohibits them from becoming the focal point of friendship cliques. By the same token, recent in-movers are likely to have relatively low prestige within the network — that is, they will be more likely to initiate linkages with other actors than to receive them.

The friendship networks of mobile and nonmobile youth might also be distinguished by their integration into the school's total friendship network. In particular, mobile youth are likely to be incorporated into networks whose members themselves are relatively unpopular. Ethnographic studies of school culture reveal a fairly clear status hierarchy, with status largely determined by perceived popularity (Adler & Adler 1998; Eckert 1989). Students' reputational status in the school hierarchy is often based on being known by other students (Eder 1985), which is likely to place mobile students at a distinct disadvantage. Moreover, in an effort to preserve their popularity and status, members of popular and influential networks are likely to be resistant to adding newcomers; they have potentially more status and prestige to lose by incorporating new members into their cliques. In contrast, members of more insular and less popular networks are likely to be more accepting of new arrivals since their already marginal status exacts few costs from admitting new members. In colloquial terms, we hypothesize that it is harder for new kids in town to break into the social circles of the popular "jocks and cheerleaders" than for them to join the comparatively isolated cliques of the "freaks and geeks."

Parents' Knowledge of Children's Friendship Networks

Residential and school mobility are also likely to have critical implications for parents' knowledge of, and association with, members of their children's friendship networks. Moving between communities or schools places adolescents in peer groups and neighborhood environments unfamiliar to their parents. In particular, the initial fission and subsequent reconstitution of adolescent peer groups upon moving means that parents of mobile adolescents are unlikely to know their children's friends or the parents of their friends (Pribesh & Downey 1999). It takes time for parents to become acquainted with their children's friends and the parents of those friends, and because mobile children have presumably established their friendships only recently, their parents are likely to have less knowledge of the members of these new peer networks. In turn, the removal of parents from adolescents' social networks reduces a key dimension of what Coleman (1988:S113) refers to as "intergenerational closure" and, at least theoretically, eliminates an important constraint on youth behavior (Coleman 1990; Portes 1998; cf. Morgan & Sorenson 1999). Indeed, Coleman goes so far as to use residential mobility as an *indicator* of the intergenerational closure of children's networks, on the assumption that "the social relations that constitute social capital are broken at each move" (Coleman 1988:S113). In contrast, we think it is conceptually more appropriate to treat residential mobility as one possible *determinant* of the degree to which older generations — particularly parents — are cognizant of and involved in children's friendship networks. Our key hypothesis here is that, compared to the parents of residentially stable children, the parents of mobile children will be less likely to know and to interact with their children's friends and with the parents of those friends.

SUBGROUP DIFFERENCES

Moving to a new community or a new school might not affect all types of adolescents equally. In particular, we anticipate finding differences in the impact of mobility by adolescents' age and sex. There are several reasons why the effects of residential and school mobility on friendship networks might differ between younger and older adolescents, although the direction of this difference is difficult to anticipate a priori. On the one hand, older adolescents are more likely to be concerned than younger adolescents with the quality and character of their friendship networks. For younger adolescents, family relationships are a dominant concern. But as adolescents age, relationships with peers assume greater importance. Thus, upon making a residential or school move, older adolescents may be more motivated than younger adolescents to seek out new and supportive peer groups. On the other hand, the friendship cliques of older adolescents are likely to be more entrenched and stable than

those of younger adolescents. The friendship ties that comprise the networks of older adolescents are perhaps stronger than those of younger adolescents, and consequently, it may be more difficult for older newcomers to join age-similar peer groups. Although older adolescents might be more motivated than younger adolescents to join such groups, they might find the networks they wish to enter less receptive to incorporating new members.

The impact of geographic and school mobility on friendship networks might also differ for girls and boys. Numerous studies indicate that females tend to have more intimate and affectionate friendships than males (e.g., Aukett, Ritchie & Mill 1988; Bell 1981; Williams 1985). For example, females report that they often turn to their friends for emotional support and appear more willing than males to share their problems and confidences with friends (Rubin 1985). Because females tend to attach greater importance to their friendships and derive more emotional support from these relationships, their friendship networks may be more enduring, and thus more difficult for new students to join. To the extent that friendship networks are less important and more fluid among boys, they may be easier for new arrivals to the community or school to enter. Thus, we hypothesize that the effect of residential and school mobility on friendship networks will be stronger among adolescent girls than among adolescent boys.

DOES CONTEXT MATTER?

The foregoing discussion tacitly assumes that adolescents who move to new communities or schools are entering settings in which most of their peers — and potential friends — have been there for a substantial period of time. In such environments, mobile children are joining networks that are already fairly well-established, and perhaps longstanding. But the effect of residential and school mobility on adolescents' friendship networks might be quite different in communities and schools in which a large proportion of neighbors and classmates are themselves relative newcomers. Conflicting predictions can be derived about the moderating influence of school-level mobility on adolescents' friendship networks.

On the one hand, high levels of mobility *at the school level* among classmates might exacerbate the impact of *individual* geographic and school mobility on adolescents' integration into friendship networks. In such unsettled environments, mobile adolescents may find it particularly difficult to make friends or to achieve a prominent position in the school social hierarchy. Alternatively, it is possible that the impact of residential and school mobility on the friendship networks of individual adolescents is weaker in schools characterized by high levels of population turnover. The comparatively unsettled status hierarchies among schools experiencing high levels of in-migration may prove to be an advantage for recent in-migrants; they may be

less likely to be “frozen out” of high-status cliques and peer groups, and the ample supply of other newcomers means that many possible new friends are available. Recent in-movers will find other newcomers who are also searching for friends. When surrounded by many similarly situated newcomers, immigrating adolescents may be more likely to find supportive peer groups based on shared interests and experiences.

Data and Methods

Add Health is a multisurvey, multiwave study of U.S. adolescents, their parents, and their schools (Bearman, Jones & Udry 1997). In the initial in-school survey, conducted in 1994-95, all students attending school on the day of the self-administered questionnaire in each of 132 high schools and middle schools (grades 7 through 12) were surveyed ($N = 90,118$). This sample is the basis for the construction of most of the measures of friendship network characteristics. A randomly-sampled subset of about 20,000 of these students were subsequently interviewed at home, as were their parents. Given our focus on the friendship networks of mobile youth, we limit our sample to those adolescents participating in both the in-school and in-home surveys and for whom valid network, parental, and weighting information is available. This results in a final sample of approximately 13,000 adolescents.

Measuring Adolescent Friendship Networks

In the *Add Health* wave 1 in-school questionnaire, respondents were given a roster of all students enrolled in the school (or their sister feeder school) and were asked to list up to five male and five female friends (using unique identification numbers).¹ If a nominated friend was not found on school rosters (i.e., was not attending either the respondent's school or the sister feeder school), this was coded as an “out-of-school” nomination. Because no information is available on the characteristics or friendship ties among these out-of-school nominations (other than to a sister school), they are not included in the construction of the network measures used here.² Detailed information on the collection and construction of the social network data and measures is available in Bearman, Moody, and Stovel (1997; see also Moody 2001).

Over the past decades analysts have developed a wide array of measures designed to measure key characteristics of social networks (Knoke & Kuklinski 1982; Scott 2000; Wasserman & Faust 1994). We incorporate several of these into our analysis. Some of these measures were constructed by the *Add Health* staff; others we have constructed ourselves. Most of the network measures could be computed using either the ego-send network (i.e., the respondent and the alters nominated as friends), the ego-receive network (i.e., the respondent and

the alters who nominate the respondent), or the union of these two groups (i.e., the send-and-receive network). Because preliminary analyses indicated few appreciable differences in the effects of mobility across these different network definitions (except for network size), we present results only for the most comprehensive conceptualization — the ego send-and-receive network.

Our analysis includes nine different measures of network size, structure, and position. Network *size* is the total number of alters in the school nominated by the respondent, plus the number of school alters who nominate the respondent, plus the respondent him/herself. *Popularity* is measured by the number of alters who nominate the respondent. *Isolation* is a binary variable scored 1 for respondents who neither send nor receive any friendship nominations, and 0 otherwise. Because they are influenced by the number of friendship nominations sent and/or received by the respondent, the measures of popularity and isolation are not independent of network size, but their importance for our hypotheses warrants considering them separately from overall size. Network *density* is measured as the number of ties present in the friendship network divided by the number of possible ties in the network. Because density is mathematically related to network size — as the size of the group increases, the total number of possible ties to others increases — we use a measure of relative density that divides the observed density of the group by the maximum possible density.

Whether the respondent reports having a *best friend* is measured by a binary variable score 1 for those with a best friend in the school and 0 for others. Among those who report having a best friend in the school, whether this *best friend reciprocates* the nomination (either as best friend or a regular friend) is also measured by a binary variable, scored 1 for reciprocation and 0 otherwise.

Our measure of network *centrality* takes into consideration both the respondent's centrality and the centrality of those to whom he/she is linked (Bonacich 1987). Centrality measures the number of links required to connect all other adolescents in a respondent's friendship network. A more central adolescent has more direct links to others in the network. *Proximity prestige* refers to how many other adolescents in the school can reach the respondent through indirect (i.e., a friend of a friend) and direct ties (Wasserman & Faust 1994). The measure we use is the ratio of the proportion of other adolescents in the school who can reach the respondent to the average distance these other adolescents are from the respondent. This allows us to weight the respondent's prestige by the closeness or proximity of individuals who nominate the respondent. The popularity of members in a respondent's friendship network (*Mean Alters' Popularity*) is measured by the mean number of friendship nominations received by alters in that network (excluding the respondent's popularity score).

We include as dependent variables three indicators of the degree to which the respondent's parent knows members of their child's friendship network.

These measures come from the (wave 1) in-home parent questionnaire. Although these parental perceptions do not necessarily refer to the friends nominated by the child, we include them here because of the importance of this issue for evaluating Coleman's (1988) claims about the impact of adolescent mobility on intergenerational closure. Two of these measures are binary variables indicating whether the parent has met the child's best friend in person (*Parent has met child's best friend*) and whether the parent has met the child's best friend's parents (*Parent has met child's friend's parents*). The third item asks parents with how many of the *child's friends' parents the parent has talked to* in the last four weeks. The seven possible responses range from none (scored 0) to six or more (scored 6).

Measuring the Independent Variables

Our primary independent variables are measures of residential and school mobility. Because prior research suggests that residential and school mobility may have independent effects on adolescent outcomes (Pribesh & Downey 1999), we include measures of both. Although residential and school mobility often occur in tandem, it is possible for adolescents to change schools without changing residences or to change residences without changing schools. In our main analyses, *residential mobility* is measured by a dummy variable, created from items in the in-home questionnaire, distinguishing adolescents who, as of the wave 1 interview, resided at their current address for fewer than two years from those who have lived there for two or more years.³ *School mobility* is measured by a dummy variable created from the in-school survey distinguishing respondents who are in their first year at their wave 1 school from respondents who have been there longer. Of the 12,931 adolescents in our maximum sample, 20% had changed residences within the two years preceding the survey, and 24% were in their first year at their current school. Eight percent of the respondents had recently changed both residences and schools.

To examine whether the impact of individual residential and school mobility varies by the level of mobility in the school, we aggregate the individual-level values of both residential mobility and school mobility to the school level. These two measures thus provide estimates of the *proportion of students in the respondents' school who had changed residences during the prior two years* and the *proportion of students who were in their first year at that school*.⁴

We include in the regression models other possible determinants of adolescents' friendship networks both to guard against finding spurious effects of residential and school mobility and to test for subgroup differences in the effect of mobility. All of these variables are constructed from data in the wave 1 student and parent questionnaires. Respondent's *age* is measured in years. Respondent's *sex* is a dummy variable scored 0 for males and 1 for females. *Race* is divided into three categories: white (the reference category), black, and other

racess. *Immigrant* respondents are distinguished from the native-born by a separate dummy variable.

Family socioeconomic status is tapped by the highest level of schooling achieved by the higher-educated parent (a 9-point scale ranging from 0 for no formal education to 9 for professional training beyond a 4-year college or university) and a dummy variable for whether the family receives public assistance (0 = no; 1 = yes).⁵ Family structure is measured by a dummy variable distinguishing adolescents who, as of the wave 1 interview, *resided with two parents* from all other family configurations.⁶

Analytical Strategy

To examine the effect of residential and school mobility on characteristics of adolescents' friendship networks, we regress each network characteristic on the measures of residential and school mobility and the other relevant predictors. Survey corrected logistic regression is used for the dichotomous network measures (svylogit in STATA) and survey corrected linear regression (svyreg in STATA) is used for the continuous indicators.⁷ We test for possible differences in the effect of mobility by age and sex, and for differences in the individual effect of mobility by the levels of mobility in the school, by including the appropriate product terms that capture these interactions.⁸ All analyses adjust for the complex design effects incurred by the clustered nature of the *Add Health* sampling strategy (see Chantala & Tabor 1999).

Results

Table 1 presents descriptive statistics for variables used in the analyses, disaggregated separately by residential mobility status and school mobility status.⁹ Residentially mobile adolescents differ significantly from their non-mobile counterparts on most of the friendship network characteristics. All of the differences between residential movers and stayers on the indicators of network size, structure, and position are statistically significant. Compared to residential stayers, residential movers have significantly smaller networks and are less popular (a difference of about one received nomination). Although few students in either mobility category neither send nor receive any friendship nominations, residential movers are about two-thirds more likely than stayers to be so isolated (5% versus 3%, respectively). The networks of residentially mobile adolescents are also significantly denser than those of stayers. Residentially mobile youth are less likely than nonmobile adolescents to report having a best friend in school (71% versus 79%) and, among those who report having a best friend, are less likely to receive a friendship nomination from this person in return (86% versus 91%). Residentially mobile adolescents are less centrally

TABLE 1: Descriptive Statistics for Measures of Adolescents' Friendship Networks and Control Variables, by Residential and School Mobility Status

		Residential Mobility			School Mobility		
	N	Mover Mean	Stayer Mean	Difference	Mover Mean	Stayer Mean	Difference
<i>Network size, structure, position</i>							
Network size	12,931	7.33 (4.22)	8.68 (4.46)	1.35**	8.15 (4.68)	8.49 (4.37)	.34
Popularity	12,931	3.78 (3.36)	4.87 (3.91)	1.09**	4.25 (3.83)	4.77 (3.82)	.52**
Isolation	12,931	.05	.03	.02**	.04	.03	.01**
Density	12,455	.31 (.16)	.29 (.14)	.02**	.29 (.15)	.30 (.14)	.01
Has best friend	12,931	.71	.79	.08**	.75	.78	.03*
Best friend reciprocates	6,669	.86	.91	.05**	.86	.91	.05**
Centrality	12,931	.69 (.60)	.86 (.63)	.17**	.82 (.64)	.83 (.62)	.01
Proximity prestige	11,769	.15 (.07)	.17 (.08)	.02**	.14 (.06)	.17 (.08)	.03**
Mean alters' popularity	12,455	5.40 (2.53)	5.91 (2.40)	.51**	5.65 (2.56)	5.86 (2.39)	.21
<i>Parental knowledge</i>							
Parent has met child's best friend	11,827	.91	.95	.04**	.93	.94	.01
Parent has met child's best friend's parents	11,828	.81	.82	.01	.81	.82	.01
Number of child's friends parent has talked to	11,846	1.85 (1.83)	2.31 (1.95)	.46**	2.15 (1.86)	2.24 (1.96)	.09
<i>Control variables</i>							
Age	12,931	15.18 (1.79)	15.35 (1.78)	.17*	14.64 (1.34)	15.53 (1.83)	.89**
Female	12,931	.54	.50	.04*	.52	.50	.02
Black	12,931	.21	.15	.06*	.17	.16	.01
Other race	12,931	.19	.16	.03*	.19	.16	.03**
Immigrant	12,931	.09	.05	.04**	.08	.06	.02**
Parent education	12,931	5.81 (2.01)	6.17 (1.94)	.36**	6.13 (1.99)	6.08 (1.95)	.05
Two-parent family	12,931	.57	.77	.20**	.72	.73	.01
Public assistance	12,931	.11	.06	.05**	.08	.06	.02

Note: Standard deviations shown in parentheses for continuous variables only.

* $p < .05$ ** $p < .01$ (two-tailed tests)

embedded in their networks, and occupy less prestigious positions in those networks. Compared to the networks of residential stayers, the alters in the networks of residential movers are themselves less popular, receiving on average one-half of a friendship nomination less.

Consistent with Coleman's (1988) claim that residential mobility detracts from children's network closure, the parents of mobile children appear less knowledgeable about, and less involved in, their children's networks than are the parents of nonmobile children. The parents of mobile children are less likely to report having met their child's best friend (91% versus 95%) and have talked to significantly fewer of the child's friends' parents. However, the difference between movers and stayers in the likelihood that the parent has met the child's best friend's parents is not significant.

In contrast to network differences between *residential* movers and stayers, differences between the friendship networks of *school* movers and stayers tend to be smaller and are less likely to be statistically significant. Adolescents who are new to their school are significantly less popular, are more likely to be isolated, and have less prestige than students who have been there longer. Like residential movers, school movers are less likely to report having a best friend in the school and, conditional upon having a best friend, are less likely to have that nomination reciprocated. However, unlike residential mobility, school mobility is not significantly related to any of the measures of parental knowledge of their children's friendship networks. The comparatively weaker associations between *school* mobility and friendship network characteristics than between *residential* mobility and these network characteristics likely indicates that school movers — especially those making normative school transitions (i.e., from junior to senior high school) — bring to their new school many of their friends from feeder schools. As a result, their friendship networks survive the move to a new environment with relatively few changes.

Table 1 also presents descriptive statistics for the control variables disaggregated by residential and school mobility status. Residential movers differ significantly from residential stayers on all of these characteristics. Compared to stayers, movers tend to be younger, female, minority-group members, and immigrants. Stayers' parents have completed fewer years of education and are more likely to receive public assistance, while movers are less likely to reside with two parents. Compared to school stayers, school movers are significantly younger and are more likely to be other than white or black and immigrants.

These differences between movers and stayers raise the possibility that differences in network attributes might result from preexisting differences in the background variables (Pribesh & Downey 1999) or, conversely, that the latter differences might suppress a true causal effect of residential or school mobility on the characteristics of adolescents' friendship networks. The regression models in Tables 2 and 3 evaluate this possibility. For each of the network characteristics that serve as dependent variables, we estimate two

TABLE 2: Regression Analysis of Adolescents' Friendship Networks — Size, Structure, and Position

	Network Size ^a		Popularity ^a		Isolation ^b	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
	b	b	b	b	b	b
<i>Mobility variables</i>						
Residential mover	-.92** (.14)	-1.05* (.49)	-.72** (.13)	-1.25** (.45)	.35 (.19)	1.10* (.47)
School mover	-.39* (.18)	-1.24* (.62)	-.44** (.16)	-1.01* (.46)	.47** (.15)	1.15** (.44)
Proportion residential movers in school	-4.12* (1.87)	-4.25* (2.04)	-3.05* (1.22)	-3.55** (1.41)	2.04 (1.26)	3.03* (1.44)
Proportion school movers in school	.13 (1.09)	-.84 (1.18)	-.27 (.79)	-.80 (.90)	.38 (.64)	1.05 (.80)
<i>Control variables</i>						
Age ^c	-.26** (.06)	-.19** (.06)	-.11* (.05)	-.07 (.05)	.15** (.05)	.11 (.06)
Female	.64** (.15)	.65** (.16)	.60** (.13)	.57** (.14)	-.83** (.17)	-.66** (.19)
Black ^d	-.97** (.27)	-.96** (.27)	-.69** (.20)	-.69** (.20)	.64** (.21)	.63** (.21)
Other race ^d	-.80** (.24)	-.79** (.24)	-.53** (.18)	-.53** (.18)	.25 (.21)	.24 (.22)
Immigrant	-1.17** (.29)	-1.14** (.28)	-.71** (.21)	-.70** (.20)	.66** (.24)	.64** (.24)
Parent education	.12** (.03)	.12** (.03)	.12** (.03)	.12** (.03)	-.02 (.02)	-.02 (.03)
Two-parent family	.44** (.14)	.44** (.14)	.30* (.12)	.30* (.12)	-.13 (.18)	-.13 (.18)
Public assistance	-.69** (.23)	-.70** (.24)	-.68** (.16)	-.68** (.17)	.55* (.27)	.54* (.26)
<i>Interactions</i>						
School mover × Age		-.28** (.09)		-.13 (.07)		.10 (.11)
School mover × Female		-.02 (.25)		.13 (.20)		-.57 (.33)
Residential mover × Proportion residential movers in school		.65 (1.88)		2.32 (1.62)		-3.17 (2.23)
School mover × Proportion school movers in school		2.50 (1.66)		1.50 (1.24)		-1.66 (1.34)
Constant	8.56	8.79	4.64	4.88	-4.00	-4.41
R ²	.07	.07	.05	.05	.05 ^e	.06 ^e
N	12,931	12,931	12,931	12,931	12,931	12,931

TABLE 2: Regression Analysis of Adolescents' Friendship Networks —
Size, Structure, and Position (Cont'd)

	Density ^a		Has Best Friend ^b		Best Friend Reciprocates ^b	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
	b	b	b	b	b	b
<i>Mobility variables</i>						
Residential mover	.02** (.00)	.00 (.01)	-.29** (.07)	-.18 (.24)	-.30* (.14)	-.45 (.36)
School mover	-.01 (.00)	-.01 (.02)	-.27** (.07)	-.71** (.25)	-.36** (.14)	-.28 (.38)
Proportion residential movers in school	-.07 (.07)	-.09 (.07)	-.74 (.78)	-.63 (.87)	-.42 (.84)	-.59 (.89)
Proportion school movers in school	-.07* (.03)	-.07* (.03)	.36 (.40)	-.29 (.45)	.16 (.56)	.33 (.57)
<i>Control variables</i>						
Age ^c	.01 (.00)	.01 (.01)	-.14** (.02)	-.11** (.03)	.12** (.04)	.10** (.04)
Female	.00 (.00)	.00 (.00)	.39** (.06)	.47** (.07)	.72** (.13)	.73** (.15)
Black ^d	-.01 (.01)	-.01 (.01)	-.63** (.09)	-.63** (.09)	-.73** (.14)	-.74** (.14)
Other race ^d	.01* (.00)	.02** (.00)	-.43** (.11)	-.42** (.11)	-.05 (.17)	-.05 (.16)
Immigrant	.04** (.01)	.03** (.01)	-.50** (.13)	-.49** (.13)	-.13 (.26)	-.14 (.24)
Parent education	.00 (.00)	.00 (.00)	.00 (.02)	.00 (.02)	.03 (.03)	.03 (.03)
Two-parent family	.00 (.00)	.00 (.00)	.15** (.07)	.15* (.07)	-.04 (.13)	-.04 (.13)
Public assistance	.01 (.01)	.01 (.01)	-.07 (.15)	-.07 (.14)	-.17 (.22)	-.17 (.22)
<i>Interactions</i>						
School mover × Age		.01* (.00)		-.12* (.05)		-.11 (.10)
School mover × Female		.01 (.01)		-.30** (.12)		-.02 (.24)
Residential mover × Proportion residential movers in school		.08 (.06)		-.44 (1.02)		.67 (1.40)
School mover × Proportion school movers in school		.03 (.05)		1.89** (.69)		-.02 (1.04)
Constant	.33	.33	1.41	1.49	2.02	2.01
R ²	.02	.02	.04 ^e	.05 ^e	.03 ^e	.04 ^e
N	12,455	12,455	12,931	12,931	6,669	6,669

TABLE 2: Regression Analysis of Adolescent's Friendship Networks — Size, Structure, and Position (Cont'd)

	Centrality ^a		Proximity Prestige ^a		Mean Alters' Popularity ^a	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
	b	b	b	b	b	b
<i>Mobility variables</i>						
Residential mover	-.13** (.02)	-.09 (.05)	-.01** (.00)	-.01 (.01)	-.23** (.08)	-.05 (.31)
School mover	-.06* (.03)	-.12 (.07)	-.02** (.00)	-.04** (.02)	-.16 (.12)	-.44 (.32)
Proportion residential movers in school	-.10 (.14)	-.06 (.14)	-.14 (.08)	-.14 (.09)	-2.63 (1.44)	-2.46 (1.58)
Proportion school movers in school	.33** (.09)	.23* (.10)	-.13** (.04)	-.15** (.04)	-.33 (.69)	-.74 (.78)
<i>Control variables</i>						
Age ^c	-.05** (.01)	-.04** (.01)	-.01 (.01)	.00 (.00)	-.08 (.04)	-.05 (.04)
Female	.10** (.02)	.11** (.02)	.01* (.00)	.01* (.00)	.06 (.09)	.11 (.10)
Black ^d	-.15** (.03)	-.15** (.03)	-.02** (.01)	-.02** (.01)	-.81** (.17)	-.81** (.17)
Other race ^d	-.05 (.03)	-.04 (.02)	-.03** (.01)	-.03** (.01)	-.70** (.16)	-.70** (.16)
Immigrant	-.10* (.04)	-.10* (.04)	-.02** (.00)	-.02** (.00)	-.67** (.15)	-.66** (.15)
Parent education	.03** (.00)	.03** (.00)	.00 (.00)	.00 (.00)	.10** (.02)	.10** (.02)
Two-parent family	.05** (.02)	.05** (.02)	.00 (.00)	.00 (.00)	.20** (.07)	.20** (.07)
Public assistance	-.06 (.03)	-.06 (.03)	-.01 (.00)	-.01 (.00)	-.26 (.15)	-.26 (.15)
<i>Interactions</i>						
School mover × Age		-.02 (.02)		-.00 (.00)		-.10 (.07)
School mover × Female		-.07* (.03)		.00 (.00)		-.20 (.11)
Residential mover × Proportion residential movers in school		-.16 (.20)		.02 (.06)		-.71 (1.32)
School mover × Proportion school movers in school		.33 (.21)		.09* (.04)		1.14 (.91)
Constant	.59	.60	.23	.24	6.08	6.11
R ²	.06	.06	.17	.17	.07	.08
N	12,931	12,931	11,769	11,769	12,455	12,455

Notes: Standard errors are in parentheses.
^a Survey-design corrected linear regression coefficients.
^b Survey-design corrected logistic regression coefficients.
^c Centered on its mean.
^d Reference category is white.
^e Pseudo R²
* p < .05 ** p < .01 (two-tailed tests)

models. The first model includes as independent variables the individual-level measures of residential and school mobility, the two contextual variables measuring the proportion of students in the respondents' school who are residential or school movers, and the relevant control variables. The second model adds four interaction terms, allowing the effects of individual school mobility to vary by age and by sex, and allowing the effects of residential and school mobility to vary by the proportion of residentially-mobile and school-mobile students in the school, respectively.

Table 2 presents the results of regression analyses examining the additive and conditional effects of residential and school mobility on the measures of friendship network size, position, and structure. Even holding constant the control variables, most of the differences between residential movers and stayers in these network characteristics observed in Table 1 remain statistically significant (see model 1). Compared to stayers, residential movers have smaller and denser networks, are less popular, are less likely to have a best friend and to have that nomination reciprocated, occupy less central and less prestigious positions within their network, and are involved in networks whose members are themselves relatively unpopular. Only the earlier significant difference between residential movers and stayers on isolation does not survive the application of controls. In this instance, however, there remains a significant difference between school movers and school stayers. Moreover, differences between school movers and school stayers on two of the outcome variables — network size and centrality — that had not been significant at the bivariate level (Table 1) become significant in the multivariate regressions. For these variables, as well as popularity, having a best friend in school, best-friend reciprocation, and proximity prestige, school and residential mobility exert independent and significant negative effects once other variables are controlled.¹⁰

In a few instances we observe significant effects of school-level mobility on these dimensions of adolescents' friendship networks. Net of the respondent's own mobility status (and the control variables), school-level residential mobility is inversely related to network size and popularity. This finding reinforces the mutual nature of friendship nominations. In schools with many newcomers there will perforce be many students who know few others well enough to nominate them as friends. Consequently, even long-term resident students will receive comparatively few nominations (i.e., be less popular) in high-turnover schools. The proportion of students new to the school is also inversely related to the respondent's prestige, thus reinforcing the negative effect of residential mobility at the individual level.

For two of the network dimensions, the effect of school-level school mobility (i.e., the proportion of school movers in the school) is opposite the effect of mobility at the individual level. Whereas residential mobility at the individual level is positively related to network density, the percentage of students who are new to the school is significantly and inversely related to density. We had

suggested earlier that the networks of mobile students would be denser than those of stayers because newcomers would be introduced to new friends by other (slightly less new) friends, leading to a friendship network in which many alters are friends with one another. However, it appears that when many students in the school are recent arrivals, the networks of both newcomers and “old-timers” are less dense, perhaps because friendships are being forged with new students who, because they have just arrived, are unlikely to be friends with one another. Somewhat similarly, while both residential and school mobility at the individual level are inversely related to network centrality, the level of mobility at the school level is positively associated with centrality.

Although less central to our analysis, the effects of the control variables are also worth noting. All of these variables have significant effects on at least several measures of network size, structure, and position. Respondents’ age is significantly and inversely related to network size, popularity, having a best friend in school, and centrality, and positively and significantly related to isolation and best-friend reciprocation. The magnitude and consistency of these differences are perhaps all the more remarkable given the relatively limited age range in the *Add Health* sample (the majority of respondents are ages 13 to 18). The friendship networks of adolescent females differ sharply from those of adolescent males. Compared to males, females report having larger networks, receive more friendship nominations, are less likely to be isolated, are more likely to have a best friend and to have that friendship reciprocated, and occupy more central and more prestigious positions in their networks. Contrary to what might be inferred from recent popular writings (Simmons 2002; White 2002; Wiseman 2002), these gender differences suggest that the social networks of young females may be more conducive to healthy adolescent development than are the networks of young males.

Friendship network characteristics also vary sharply by race. Compared to whites, nonwhites (i.e., blacks and other races) have significantly smaller networks, are less popular, are more likely to be isolated (blacks only), have denser networks (other races only), are less likely to report having a best friend in school, are less likely to have that nomination reciprocated (blacks only), occupy less central (blacks only) and less prestigious positions in their networks, and have as members of their friendship network relatively unpopular students. With only slight exceptions, the social networks of immigrants differ from those of the native-born in much the same way as the networks of nonwhites differ from those of whites.

Adolescents from more privileged backgrounds — as indicated by higher levels of parental education, residing with both parents, and the absence of public assistance receipt — tend to have larger friendship networks and receive more friendship nominations. Youth whose families receive public assistance are significantly more likely to be isolated, and youth from two-parent families

are significantly more likely to report having a best friend in school. Parental education and a two-parent family structure are positively associated with adolescents' centrality in their networks and with popularity of the alters in their networks.

Model 2 of Table 2 adds to model 1 the product terms representing the interactions between school mobility status and both age and sex, and the product terms capturing the interactions between residential and school mobility and their respective school-level aggregated values. For several of these characteristics of adolescents' friendship networks, the effect of changing schools varies significantly by respondent's age. The inverse effects of school mobility on network size and the likelihood of having a best friend in school are especially pronounced among older adolescents, as is the positive effect of school mobility on network density. As suggested above, these differences may reflect greater stability and cohesion among the networks of older than younger adolescents, and hence relatively impermeable barriers to entry among newcomers to the school. More generally, these interactions suggest that, at least in terms of its impact on friendship networks, moving to a new school is apt to be considerably more stressful for older than for younger children.

There is also some slight indication in Table 2 that the impact of school mobility on friendship networks differs between females and males. The negative impact of changing schools on the probability of having a best friend in the school and the degree of centrality in the respondent's network is significantly more negative for girls than for boys. Thus, although in general adolescent girls are more likely to report having a best friend and to be more centrally located in their social networks, moving to a new school has a more detrimental impact on these dimensions of adolescent friendship networks among girls than among boys.

The impact of changing schools on two dimensions of adolescents' friendship networks — having a best friend in the school and proximity prestige — also varies significantly by the proportion of students in the school who are relative newcomers. In both of these cases, the disruptive effect of changing schools is reduced when the respondent is moving to a school in which a large percentage of the other students are also recent in-movers. As suggested above, perhaps high levels of mobility within the school generate a fairly inchoate and fluid network structure—one in which many students are “up for grabs” as potential friends — that buffers the otherwise detrimental effect of mobility on adolescent friendship networks. In such contexts, new arrivals are cushioned by the ample presence of other newcomers; indeed, it seems likely that many of the friendships being formed by newcomers in these high-mobility contexts are with other “new kids in town.” At a broad theoretical level, these findings suggest an important modification to the conventional Durkheimian perspective on the disruptive impact of geographic mobility. While geographic

TABLE 3: Regression Analysis of Adolescents' Friendship Networks — Parental Knowledge

	Parent Has Met Child's Best Friend ^b		Parent Has Met Child's Best Friend's Parents ^b		Number of Child's Friends' Parents Talked To ^a	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
	b	b	b	b	b	b
<i>Mobility variables</i>						
Residential mover	-.39* (.17)	-.55 (.61)	-.35** (.09)	-.26 (.33)	-.26** (.06)	-.53* (.22)
School mover	-.10 (.12)	.17 (.37)	-.09 (.09)	-.70** (.22)	-.08 (.05)	-.33* (.17)
Proportion residential movers in school	-1.68* (.80)	-1.92 (1.17)	-1.51** (.55)	-1.49* (.61)	-1.13* (.55)	-1.40* (.57)
Proportion school movers in school	-.42 (.51)	-.57 (.64)	-.30 (.39)	-.84* (.40)	-.47 (.32)	-.66 (.37)
<i>Control variables</i>						
Age ^c	-.02 (.04)	-.04 (.04)	-.14** (.02)	-.14** (.03)	-.14** (.02)	-.13** (.03)
Female	.22 (.12)	.33* (.13)	.14* (.07)	.16* (.08)	.11* (.04)	.10* (.05)
Black ^d	-1.04** (.16)	-1.07** (.16)	-.55** (.11)	-.55** (.11)	-.43** (.09)	-.43** (.08)
Other race ^d	-.88** (.15)	-.88** (.15)	-.63** (.09)	-.63** (.09)	-.48** (.08)	-.48** (.08)
Immigrant	-.43** (.18)	-.45* (.18)	-.22 (.13)	-.23 (.13)	-.50** (.08)	-.50** (.08)
Parent education	.17** (.03)	.17** (.03)	.13** (.02)	.14** (.02)	.18** (.02)	.18** (.02)
Two-parent family	.28* (.13)	.29** (.13)	.23** (.09)	.24** (.09)	.29** (.06)	.29** (.06)
Public assistance	-.40** (.15)	-.41** (.15)	-.45** (.13)	-.46** (.13)	-.19* (.08)	-.20* (.08)

relocation does appear to alter the social networks of individual movers, this effect may be attenuated by high levels of mobility in the community as a whole.

PARENTAL KNOWLEDGE OF CHILDREN'S FRIENDSHIP NETWORKS

Table 3 presents the regression analyses of the impact of adolescent mobility on the three indicators of parents' knowledge of their children's friendship networks. In the additive model (model 1), adolescent residential mobility, but

TABLE 3: Regression Analysis of Adolescents' Friendship Networks — Parental Knowledge (Cont'd)

	Parent Has Met Child's Best Friend ^b		Parent Has Met Child's Best Friend's Parents ^b		Number of Child's Friends' Parents Talked To ^a	
	Model 1	Model 2	Model 1	Model 2	Model 1	Model 2
	b	b	b	b	b	b
<i>Interactions</i>						
School mover × Age		.16 (.10)		.08 (.06)		.01 (.04)
School mover × Female		-.40 (.22)		-.07 (.15)		.04 (.11)
Residential mover × Proportion residential movers in school		.71 (2.58)		-.32 (1.39)		1.19 (.94)
School mover × Proportion school movers in school		1.14 (1.06)		2.30** (.65)		.79 (.50)
Constant	2.58	2.64	1.30	1.41	1.42	1.53
R ²	.07 ^e	.07 ^e	.08 ^e	.08 ^e	.12	.12
N	11,827	11,827	11,828	11,828	11,846	11,846

Notes: Standard errors are in parentheses.

^a Survey-design corrected linear regression coefficients.

^b Survey-design corrected logistic regression coefficients.

^c Centered on its mean.

^d Reference category is white.

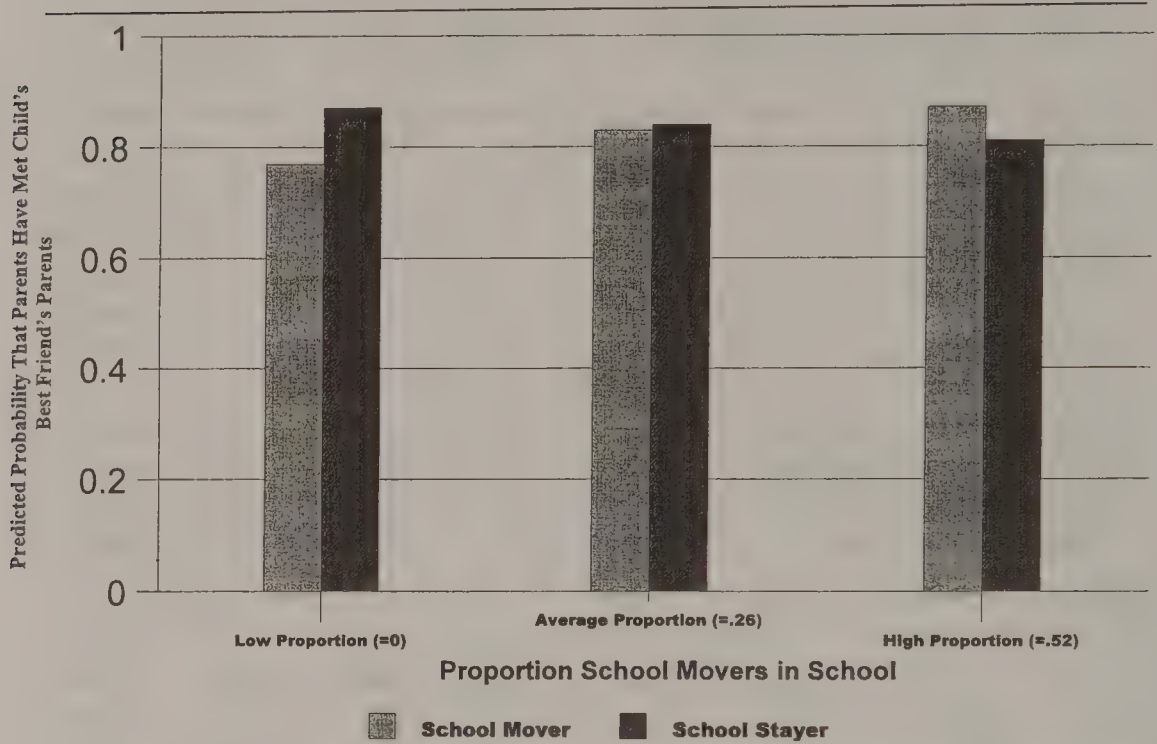
^e Pseudo R²

* $p < .05$ ** $p < .01$ (two-tailed tests)

not school mobility, is inversely related to all three measures. Net of the controls, the odds that parents of residential movers have met their child's best friend or the parents of that friend are about 30% less than the corresponding odds for the parents of residential stayers (the logistic coefficients of $-.39$ and $-.35$ translate to odds ratios of $.68$ and $.70$, respectively). The parents of residential movers also report talking to significantly fewer of their child's friend's parents in the past month. Again, these findings are consistent with Coleman's (1988) arguments regarding the negative consequences of residential mobility for the extent of intergenerational closure in adolescents' social networks.

Beyond the effects of individual mobility, there are statistically significant effects of residential mobility at the school level as well. When the child attends a school in which many of the students are residential movers, parents are significantly less likely to report having met the child's best friend or the parents of that friend, and the respondent's parents have talked to significantly fewer

FIGURE 1: Predicted Effect of Individual School Mobility on the Probability that Parents Have Met Child's Best Friend's Parents, by Selected Values of the Proportion of School Movers in School



of their child's friend parents. Thus, high-mobility schools deter connections among adults in adolescents' friendship networks, even when adolescents (and their parents) are themselves fairly long-term residents.

Parental knowledge of their children's friendship networks is also associated with most of the demographic and family background variables. Compared to the parents of younger children, the parents of older children are less likely to have met the best friend's parents or to have talked recently with the child's friend's parents. Parents are more likely to have talked to the parents of their daughter's friends than their son's friends. The parents of nonwhites (i.e., blacks and other races) and immigrants are generally less likely to have met their child's best friend or that friend's parents, or to have talked recently with other of their child's friend's parents. On all three indicators, higher-educated parents, parents living with spouses, and those not receiving public assistance are significantly more knowledgeable about these members of their children's friendship networks.

As shown in model 2, the effect of changing schools on parental knowledge of their children's friendship networks does not appear to vary significantly by the child's age or sex. Nor does the effect of adolescent residential mobility vary significantly by the level of residential mobility in the school. However, the impact of changing schools on the likelihood that a child's parents have met

the parents of the child's best friend does vary significantly by the proportion of students who are new to the school. Here too, high levels of adolescent mobility in the school as a whole serve to buffer the detrimental impact of mobility at the individual level.

Consider Figure 1, which graphs the predicted probability that a child's parents have met the parents of the child's best friend by both individual school mobility status and the proportion of students who are new to the school. In a school in which all of the students have been there for more than one year (i.e., the proportion school movers in school equals 0), the predicted difference between school movers and stayers in the probability that their parents have met the parents of their best friend is .10 (school movers have a predicted probability of .77 compared to .87 for school stayers). But in schools with the average number of new students (.26), the predicted difference in the probability almost disappears entirely (a predicted probability of .83 for school movers versus .84 for school stayers). And in schools with many new students (.52, or two standard deviations above the school mean), the predicted difference actually favors mobile students, who have a predicted probability of .87 compared to .81 for school stayers. Perhaps parents in these high-mobility environments are especially apt to seek out the parents of their children's friends in order to successfully monitor their children's behavior, similar to the parenting strategies adopted in high-risk environments (Furstenberg 1993).

ADDITIONAL ANALYSES

The analysis thus far does not distinguish between students entering a new school from outside of the school system from students making a normal transition to a new school via promotion from a feeder school within the school district. Although prior research suggests that even normative school transitions affect adolescent friendship networks (Fenzel 1989), because these students are likely to enter their new school along with many of their friends, it might be expected that normative transitions will have less of an impact on adolescents' friendship networks than will other types of school moves (e.g., transfers). Accordingly, in supplementary analyses we attempted to distinguish respondents making "normative" school transitions (i.e., school movers who come from feeder schools) from likely in-movers from outside the school system or from a within-district school with the same grade structure (e.g., a move between junior high schools within the same district or a move from a public to a private school within the same geographic area). Our efforts to make this distinction are hampered somewhat by the limitations of the *Add Health* survey; although we can determine whether students were in their first year at their current school, we cannot determine definitively whether they recently made a normative or a non-normative school transition. We attempted to approximate this distinction by assuming that all first-year students in a

TABLE 4: Regression Analysis of Adolescents' Network Size

	Model 1	Model 2
	b	b
<i>Mobility variables</i>		
Residential mover	-.83** (.14)	-.85 (.47)
Nonnormative school mover	-1.48** (.29)	-2.30*** (.44)
Normative school mover	-.05 (.21)	-1.14 (.61)
Proportion residential movers in school	-3.96* (1.87)	-3.86 (2.03)
Proportion nonnormative school movers in school	-.70 (2.82)	-2.91 (2.70)
Proportion normative school movers in school	-.07 (1.22)	-.81 (1.25)
<i>Interactions</i>		
Nonnormative school mover \times Age		-.31** (.12)
Normative school mover \times Age		-.02 (.13)
Nonnormative school mover \times Female		-.66 (.36)
Normative school mover \times Female		.19 (.27)
Residential mover \times Proportion residential movers		.37 (1.83)
Nonnormative school mover \times Proportion nonnormative school movers		10.70** (2.81)
Normative school mover \times Proportion normative school movers		3.94* (1.80)
Constant	8.58	8.76
R ²	.07	.08
N	12,931	12,931

Notes: Survey-design corrected linear regression coefficients with standard errors in parentheses.
Models include all control variables shown in Table 2.

* $p < .05$ ** $p < .01$ (two-tailed tests)

school's lowest grade are making normative transitions; other first-year students are assumed to be making non-normative transitions. We then reestimated all of the regression models including separate dummy variables for students making a normal transition and for students making a nonnormal transition, with students who had been in their current school for more than one year again serving as the reference category. We also included the estimated proportions of students in the school who made normative and non-normative transitions, and included these predictors in the regression models, along with the other independent variables shown in Tables 2 and 3.

Table 4 presents the coefficients of key interest for respondents' network size. Model 1 of this table shows the coefficients for the three individual-level mobility variables and their school-level counterparts. The coefficients for both residential mover and nonnormative school mover are negative and statistically significant, but making a normative school move does not appear to significantly affect the size of adolescents' friendship network. Of the school-level mobility variables, only the proportion of students who are residential movers exerts a negative and significant effect on network size.

Model 2 of Table 4 adds the relevant product terms testing for the hypothesized interactions. The significant negative coefficient for the interaction term involving age indicates that the (negative) impact of making a non-normative school move on network size is particularly strong among older adolescents. And, the significant positive coefficients for the product terms representing the interactions of both a normative school move and a non-normative school move with their school-level analogs indicate that making either type of school move is less detrimental to adolescents' network size when they attend a school in which comparatively many of their schoolmates are also school movers.

We estimated similar models for the other dependent variables (results not shown). As was the case for network size, we tended to observe larger and more often significant effects of making a non-normative school transition than making a normative school transition. Many of the effects of "school mover" observed in the regression models shown in Tables 2 and 3 appear to be capturing differences between school "stayers" and students who are making a nonnormative school transition. In fact, for network density we observe a significant and positive effect of making a nonnormative transition, even though the difference between all school movers and stayers on these variables is not significant (Table 2, model 1). However, the effect of making a normal school transition was also occasionally significant; this was the case for whether the respondent's best friend reciprocates a friendship nomination and for proximity prestige. Thus, it appears that even normal school transitions affect some aspects of adolescents' friendship networks. We also observed more

TABLE 5: Regression Analysis of the Effect of Duration of Residence on Characteristics of Adolescents' Friendship Networks

Panel A						
	Network Size ^a		Popularity ^a		Isolation ^b	
	b	S.E.	b	S.E.	b	S.E.
<i>Duration of residence</i>						
Reference = 6+ Years						
Less than 1 year	-1.24**	(.23)	-.95**	(.21)	.52*	(.26)
1 Year	-1.23**	(.19)	-.98**	(.19)	.57**	(.21)
2 Years	-.77**	(.19)	-.51**	(.16)	.23	(.22)
3 Years	-.61**	(.21)	-.50**	(.20)	.58**	(.20)
4 Years	-.05	(.22)	-.29	(.20)	-.06	(.36)
5 Years	-.32	(.25)	-.40	(.22)	.52	(.30)
R ²	.07		.05		.06	
N	12,931		12,931		12,931	
Panel B						
	Centrality ^a		Proximity Prestige ^a		Mean Alters' Popularity ^a	
	b	S.E.	b	S.E.	b	S.E.
<i>Duration of residence</i>						
Reference = 6+ years						
Less than 1 year	-.17**	(.03)	-.01	(.01)	-.37**	(.13)
1 Year	-.16**	(.02)	-.01**	(.00)	-.40**	(.10)
2 Years	-.12**	(.03)	-.00	(.01)	-.26*	(.12)
3 Years	-.11**	(.03)	-.01	(.00)	-.41**	(.11)
4 Years	.01	(.03)	-.00	(.01)	.01	(.15)
5 Years	-.05	(.03)	-.00	(.00)	-.22	(.13)
R ²	.06		.11		.07	
N	12,931		11,769		12,455	

significant interactions with age; in addition to the differences noted above, the inverse effect of making a non-normal school transition on popularity and centrality grows significantly stronger with age, reinforcing our finding of the relative impermeability of older adolescents' friendship networks. Most of the other findings reported above were not appreciably altered by our attempt to distinguish students making normal school transitions from students making non-normal transitions.

Another key issue is how long the effects of mobility on adolescents' friendship networks last. If mobile adolescents adjust quite quickly after the move, then moving may have little consequence for their well-being and peer influences on their behavior. Although we lack longitudinal data on adolescents'

TABLE 5: Regression Analysis of the Effect of Duration of Residence on Characteristics of Adolescents' Friendship Networks (Cont'd)

Panel A						
	Density ^a		Has Best Friend ^b		Best Friend Reciprocates ^b	
	b	S.E.	b	S.E.	b	S.E.
<i>Duration of residence</i>						
Reference = 6+ Years						
Less than 1 year	.02**	(.01)	-.49**	(.11)	-.28	(.26)
1 Year	.01*	(.01)	-.39**	(.11)	-.52**	(.16)
2 Years	.00	(.01)	-.34**	(.10)	-.37*	(.16)
3 Years	-.00	(.01)	-.29**	(.11)	-.22	(.21)
4 Years	-.02**	(.01)	-.03	(.11)	-.47*	(.21)
5 Years	-.01	(.01)	-.25*	(.13)	-.14	(.25)
R ²	.01		.04		.04	
N	12,455		12,931		6,669	

Panel B						
	Parent Has Met Child's Best Friend ^b		Parent Has Met Child's Best Friend's Parents ^b		Number of Child's Friends Parent Has Talked To ^a	
	b	S.E.	b	S.E.	b	S.E.
<i>Duration of residence</i>						
Reference = 6+ Years						
Less than 1 year	-.44*	(.22)	-.47**	(.13)	-.35**	(.10)
1 Year	-.56**	(.20)	-.55**	(.12)	-.39**	(.08)
2 Years	-.31	(.18)	-.38**	(.11)	-.28**	(.08)
3 Years	-.36	(.25)	-.20	(.14)	-.25**	(.08)
4 Years	.13	(.25)	-.21	(.14)	-.17	(.09)
5 Years	-.08	(.23)	-.44**	(.14)	-.28**	(.10)
Pseudo R ²		.10		.07		.12
N	11,827		11,828		11,846	

Notes:^a Survey-design corrected linear regression coefficients with standard errors in parentheses.

^b Survey-design corrected logistic regression coefficients with standard errors in parentheses.

Models include all control variables shown in Table 2 and school mobility.

* $p < .05$ ** $p < .01$ (two-tailed tests)

friendship networks, we can indirectly examine this issue by comparing the network characteristics of adolescents' who have lived at their current residence for varying periods of time. In Table 5 we present the coefficients for a set of

dummy variables representing adolescents who have lived at their current address for less than one year and for one year through five years, with a duration of residence of six or more years serving as the reference category. The regression models from which these coefficients are taken hold constant school mobility and the control variables shown in Tables 2 and 3.

The results of these analyses suggest strongly that the effects of residential mobility on key characteristics of adolescents' friendship networks persist for more than a brief period. Although there is some variation across dependent variables, and the patterns do not always reveal a monotonic increase or decrease with duration of residence, for most of the dependent variables even living in the current residence for up to 4 (exact) years leads to a significantly different outcome than living there six or more years. In fact, the results are in some ways remarkably consistent across outcomes. Of the 9 measures of peer network structure, for six of them (network size, popularity, isolation, has best friend, centrality, and mean alters' popularity) the coefficient for duration of residence of three years is statistically significant, and for one other (whether best friend reciprocates) the coefficient is significant through year four. The pattern of coefficients for network density is intriguing; it suggests that both newcomers and long-term residents have unusually dense networks, while adolescents who have lived at their current address for a medium amount of time have the least dense networks. This pattern might suggest that newcomers initially become immersed in dense networks as they are introduced to their friends' friends, then over time expand their networks as they search for friends who share similar interests, and then as further time elapses again become part of a dense clique of homophilous students.

The effect of residential mobility on parents' knowledge of children's friendship networks seems to last even longer. Parents who have lived at their current address for five years are still significantly less likely than parents who have lived there six or more years to have met or talked to the parents of the child's best friend. (In contrast, parents meet their child's best friend somewhat sooner.) Overall, then, these findings imply that the impact of moving on adolescents' friendship networks lasts for more than a trivial amount of time.

Discussion and Conclusion

American children change residences and schools frequently, and these changes have been linked to a variety of disadvantaged outcomes in the adolescent life course. Although differences between mobile and nonmobile children's friendship networks have been posited as key mechanisms linking mobility to these problematic behaviors, few studies have explored rigorously the impact of adolescent mobility on the quality and characteristics of their friendship networks. Our analysis of the extraordinarily rich social network data in *Add*

Health provides valuable insights into how residential and school mobility affects the structure and composition of adolescents' social networks. Four main conclusions emerge.

First, movers differ from their nonmobile counterparts on an array of friendship network characteristics. It is perhaps not surprising that mobile youth have fewer friends, are less popular, and are more likely to be isolated than adolescents who have resided in their schools or communities for a longer period of time; forming friendships takes time, which puts newcomers at a relative disadvantage. But differences in the friendship networks of adolescent movers and stayers extend beyond mere size. For example, mobile youth have denser networks, have less centrality and prestige in their networks, are less likely to have someone they nominate as a best friend reciprocate that nomination, and have as friends youth who themselves are relatively unpopular. Particularly noteworthy, given their implications for theories of adolescent social capital (Coleman 1988; Portes 1998), are the fairly sharp differences between residential movers and stayers in the degree to which these children's parents have knowledge of the actors in their children's networks. These effects of mobility are not fleeting, but rather appear to persist for several years.

Second, we find some evidence that the impact of moving to a new school on the size and structure of friendship networks varies by adolescents' age and sex. Although significant differences are not found for all network characteristics, when they are observed it appears that the detrimental effects of school mobility are more pronounced among older than younger adolescents and among girls more so than boys. These differential effects suggest that females and older youth are likely to have particular difficulty breaking into peer networks. They also suggest that, upon moving, parents of older adolescents and girls make special efforts to cushion the disruptive impact of mobility on their children's friendship networks.

A third main conclusion from our analysis is that, beyond the effects of individual mobility, the level of mobility in the school as a whole also influences the characteristics of adolescents' friendship networks. For example, in schools in which many students are recent residential or school movers, all students — both newcomers and more established residents — tend to have smaller networks, receive few friendship nominations (i.e., are unpopular), have less prestige (albeit greater centrality) in their networks, and are unlikely to have a parent who has met their best friend or that friend's parents. To a significant degree, these contextual effects of mobility at the school level parallel studies of residential instability at the city and neighborhood level, which demonstrate that high levels of population turnover can disrupt social ties among newcomers and old-timers alike (Crutchfield, Geerken & Gove; Sampson 1988; Sampson et al. 1999). Thus, even parents of residentially stable youth, as well as teachers, counselors, and administrators in schools with many new students, should be

attuned to the impact of mobility at the school level on their children's (and students') friendship networks.

Fourth, our findings indicate that the extent to which changing residences or schools influences critical attributes of adolescents' friendship networks varies somewhat by the degree to which students in the school as a whole are also relative newcomers to their schools or communities. The negative impacts of individual mobility on network size (for non-normative school movers), whether a respondent has a best friend in school, proximity prestige, and whether the parent has met the child's best friend's parent are all attenuated by high levels of mobility in the school. In residentially stable contexts, adolescent in-movers may find it particularly difficult to form new friendships and to attain a position of prestige in their friendship network. In contrast, moving to a new community or school in which many schoolmates are also newcomers substantially cushions the effect of mobility, most likely because an ample supply of equally new students provides a ready pool of available friends. Parents of mobile youth might wish to be particularly attentive to, and particularly vigilant monitoring, their children's friendships when they are moving to schools or communities with relatively low levels of in-migration. This result might have implications for migrant adjustment more generally, for it suggests that the negative impact of in-migration on the strength of an individual's community ties will be most strongly felt in neighborhoods and metropolitan areas with few other recent residents. Perhaps ironically, the disruptive impact of geographic relocations may be diminished when movers are surrounded by other recently uprooted neighbors.

Future research in this area might profit by examining the cumulative effects of residential and school mobility on adolescent friendship networks. Does the frequency of prior moves exacerbate the impact the most recent move? Or alternatively, do children who have moved frequently in the past learn to adjust to these transitions and make friends more readily? Longitudinal research is also needed. With the *Add Health* data we are able to assess adolescents' friendship networks at a single point in time, but comparisons of network characteristics before and after a move may prove instructive. In particular, some adolescents may be motivated to change schools because of dissatisfaction with their friendship networks or because of parental concern over the types of friends in their child's network. Although mobile adolescents may have less satisfying friendship networks than their non-mobile schoolmates, these networks may nonetheless represent an improvement over the pre-move networks. Racial differences in adolescent friendship networks, and how these networks are affected by mobility, also warrant further attention. We observe pronounced racial differences in virtually all of the dimensions of adolescent friendship networks, and it is possible that processes through which mobility affects these outcomes might vary between whites and nonwhites. For example, moving to a new school may be less disruptive for black adolescents when that

school has a relatively large black student population; in contrast, black adolescents moving to predominantly white schools may face particular difficulty becoming integrated into new friendship networks.

Perhaps most importantly, future research should examine the degree to which differences in the friendship networks of mobile and nonmobile adolescents can explain the impact of residential and school mobility on adolescent problem behavior, including academic achievement (Pribesh and Downey 1999), but other behaviors as well. Although differences in the friendship networks of mobile and nonmobile students are important in their own right, their primary significance might well lie in their potential to transmit, or mediate, the effects of mobility. As noted above, while acknowledging the potential benefits of geographic relocations or school changes, mobility during the adolescent years is nonetheless associated with a rather lengthy litany of disadvantaged adolescent outcomes. But the mechanisms through which mobility affects these behaviors are not well understood. Differences in the characteristics of friendship networks offer one broad rubric of potential mechanisms, though whether the differences we observe in this analysis are large enough to play a material role in this process is currently unclear. Moreover, other possible routes of transmission might play important roles in this process, including relationships with parents, other forms of social capital, and psychological distress more generally. Accordingly, a comprehensive understanding of how moving to new communities and new schools shapes adolescent development, behavior, and well-being awaits further research.

Notes

1. Although adolescents were limited to ten friendship nominations, most students do not use all of the choices available to them; the mean number of friends nominated is 5.7.
2. Supplementary analyses indicate that, compared to non-movers, residential movers have a larger proportion of their friendship ties comprised of out-of-school nominations. However, there is no difference between school movers and school stayers in the proportion of network ties directed outside of the school.
3. Ideally, our measure of adolescent residential mobility would distinguish long-distance from short-distance moves, since the former are more likely to sever friendship ties in the community of origin and lead to the formation of new friendship networks in the area of destination. Unfortunately, the *Add Health* data do not allow us to make this distinction. However, if short-distance moves are less likely than long-distance moves to alter adolescents' networks, then their inclusion in the category of movers would result in a conservative observed effect of residential mobility on adolescents' friendship networks.

4. The number of students contributing to the aggregate measures of mobility varies considerably across schools, from 30 (in very small schools) to over 2,500 (in large schools).
5. We do not include family income as a control because of the substantial amount of missing data on this variable.
6. Additional measures of family structure were assessed in preliminary analyses including female-headed, male-headed, and step-parent families. Results from these preliminary analyses indicated that a single dichotomous variable most effectively captured the effect of family structure on outcomes.
7. Some of the distributions for the continuous variables are far from normal. In supplemental analyses we explored transformations of these variables, most often by logging them. These transformations generally had little impact on our substantive conclusions, and for ease of interpretation, we report only the models for the untransformed dependent variables.
8. To simplify the models, we estimated interactions only between age and sex, on the one hand, and school mobility, on the other. We did examine interactions of age and sex with residential mobility as well, but these results generally added little of substantive interest over and above the interactions with school mobility.
9. The sample sizes vary across the dependent variables primarily because some of the network variables are undefined under certain conditions. For example, many of the measures are undefined for isolates, i.e., respondents who neither send nor receive any friendship nominations.
10. In supplementary analyses we also examined whether residential mobility and school mobility interact in affecting the outcome variables. We found some evidence that making one type of move exacerbates the effect of making the other type of move. For network size, density, whether the respondent reports having a best friend in school, and centrality, the detrimental effect of making one type of move is significantly stronger if the adolescent has also experienced the other type of move. Adolescents who simultaneously make a residential and a school move are most likely making a non-normative school move (e.g., moving from one school district, or even one city, to another), and we attempt to address the distinction between normative and non-normative school moves below.

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Strangers in the Halls: Isolation and Delinquency in School Networks*

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Abstract

Although criminologists have long recognized the strong correlation between a person's delinquency and the delinquency of his or her friends, the mechanisms underlying this relationship remain elusive. The current study adds to research on peers and delinquency by exploring the behaviors of adolescents isolated from school friendship networks. Data from the National Longitudinal Study of Adolescent Health (Add Health) allow me to identify an isolated population and test theoretically derived hypotheses. Results suggest that low peer attachment in and of itself fails to increase future delinquency. However, isolation in conjunction with problematic peer encounters at school was found to significantly increase delinquency and delinquent peer associations. The theoretical implications of this interaction are discussed.

Understanding the relationship between peers and individual delinquency has been one of criminology's most rigorously pursued and controversial research areas. Studies have consistently found that the delinquency of a person's friends is among the strongest correlates of his or her own delinquent behavior (Akers 1979; Gleuck & Gleuck 1950; Gold 1970; Haynie 2001; Hirschi 1969; Matsueda & Heimer 1987; Short 1957; Warr 1993). However, the causal significance of this relationship remains a point of considerable contention. For socialization theories (e.g., differential association, learning, subcultural, and interactional theories), delinquent peers are thought to be a primary mechanism whereby adolescents acquire the techniques, attitudes, and opportunities necessary for criminal behavior. In contrast, control and propensity theories question the causal role of peers in explaining individual delinquency. Researchers from this

** I thank Ross Matsueda, Kate Stovel and the reviewers for their helpful advice and comments on this project. This research uses data from Add Health, a program project designed by J. Richard Udry, Peter S. Bearman, and Kathleen Mullan Harris and funded from the National Institute of Child Health and Human Development (Grant P01-HD31921). Direct all correspondence to Derek Kreager, Department of Sociology, University of Washington, Box 354330, Seattle, Washington 98195. E-mail: dkreager@u.washington.edu.*

tradition argue that the peer-delinquency correlation results from (1) the relationship being reversed, whereby delinquents select into delinquent associations, (2) the correlation being spurious, resulting from omitted causal variables, or (3) the relationship being a methodological artifact caused by respondents simultaneously reporting their own and their friends' delinquency (Gottfredson and Hirschi 1990). Recent research attempting to test these contrasting assertions has provided mixed results. Although most studies have found at least some evidence of a peer effect, the magnitude of this effect varies substantially (Elliott & Menard 1996; Krohn 1996; Matsueda & Anderson 1998; Warr 1993). A lack of definitive results has led to continued speculation regarding the function of peers in delinquent behaviors.

One relatively unexplored area which may facilitate our understanding of peer effects is the behavior of individuals isolated from friendship networks. There are at least three reasons peer isolates should be of interest to criminologists. First, marginal adolescents evoke disparate hypotheses from socialization and social control theories (Giordano et al. 1986; Tolone & Tieman 1990). For socialization theories, isolates have limited access to the delinquent attitudes, techniques, and role models of teenage groups and therefore would be expected to display minimal delinquency themselves. In contrast, Hirschi's (1969) original formulation of social control theory would argue that the lack of peer attachment increases isolates' freedom from conventional constraints and allows them to act on naturally selfish and delinquent propensities. Isolate behavior therefore provides an added opportunity to distinguish between these two theoretical traditions.

A second reason for studying isolate behavior is that such research may illuminate the influence of peers *outside* an individual's friendship networks. In particular, child development studies of low status children suggest that isolates may be divided into two categories: those having habitual problems getting along with peers, and those virtually ignored by others their age. This distinction may be significant for the study of adolescent delinquency because only those isolated children with peer trouble — and not ignored isolates — have been found to have significant behavioral problems and increased likelihoods of forming future delinquent associations (Fergusson et al. 1999; Kupersmidt, Coie & Dodge 1990; Laird 2000; Parker & Asher 1987). Similar findings applied to an adolescent population may have important implications for criminological research. Not only would they point to peer-isolation and peer-conflict as significant factors in the etiology of delinquency, they may also provide clues to delinquent group formation.

A final reason for exploring isolate delinquency is to determine if isolation marks a turning point in adolescent development. In a longitudinal analysis of peer groups, Elliot and Menard (1996) found that the majority of adolescents identified as peer-isolates do not maintain that status over time.

Instead, most of these individuals transition from peer isolation to being members of larger groups or cliques. If such transitions in fact occur, questions then arising are (1) "what groups do isolates join and how do these new memberships affect future delinquency?" and (2) "do the precursors of isolation, or perhaps the experience of marginalization itself, cause adolescents to follow a more delinquent trajectory?" Answers to these questions could shed light on the developmental impacts of peer status and how these transitions relate to subsequent behavioral outcomes.

Given the potential returns of research on peer isolates, the current study seeks to expand on previous analyses by more accurately identifying and exploring the behaviors of adolescents lacking friendship ties. Building on developmental studies of marginal children, I develop a typology of adolescent peer status and derive theoretical hypotheses relating isolation to delinquent behavior. I then test these hypotheses in three steps. First, I explore the roots of peer status to determine if isolates are indeed a heterogeneous population and what characteristics distinguish isolates from peer-connected youth. Second, I examine the potential impact of isolation on future delinquent peer involvement and delinquency. Finally, I consider the role of delinquent peers in explaining isolate behavior. Together, these analyses should build our understanding of peer status and further explicate how peer processes shape delinquent outcomes.

Background

Adolescence is a period marked by tremendous physical and social transitions. The onset of puberty and physical maturation coincide with teenagers moving from relatively homogeneous primary schools into larger, more heterogeneous middle and high schools. Within these new school contexts, opportunities for clique formation and the establishment of status hierarchies dramatically increase (Corsaro & Eder 1990; Eder 1985). To cope with the rapid changes in their lives, teenagers increasingly turn to peers for social support (Everhart 1983; Klinger 1977). Peers not only provide valuable emotional assistance, they are often vehicles for social status and afford opportunities for shared behavior, including involvement in delinquent activities (Warr 2002).

While most teenagers move through adolescence increasing ties to their peers, some youth fail to connect with others and fall to the bottom of a school's status hierarchy. Terms such as "nerds," "losers," "queers," and "nobodies" graphically portray the predicament of isolated students. Often, these marginal individuals are seen as deserving of their status, lacking those qualities considered "cool" by other adolescents (Giordano et al. 1986:1196). Not surprisingly, research finds such students have decreased school performance and show additional signs of emotional distress (Brown & Lohr 1987; Hansell

1985). Less well understood, however, are the delinquent behaviors of marginal youth. Relatively few studies have considered the delinquency of isolates, most likely due to the difficulty in identifying an isolated population. Of the studies that do measure isolation, most have found a negative or an insignificant relationship between marginal peer status and delinquency, suggesting isolates may be a relatively conforming group (for an exception regarding smoking, see Ennett and Bauman [1993]).

Tolone and Tieman (1990), in a survey of approximately 8,500 high school seniors, found that students scoring low on a social involvement scale ("loners") were less likely to be involved in delinquent activities than highly involved students ("socials"). In addition, "loners" were found to be more likely to read books or watch TV than "social" students. Although these findings reinforce an image of isolates as conformists, limitations may qualify the study's results. One problem is that it may not accurately capture isolation. Tolone and Tieman identify isolates through self-reported measures of social involvement rather than sociometric data of actual friendships. This operationalization may be inaccurate because students not participating in social activities do not necessarily lack friends. From this categorization, we are unsure exactly who is captured under the term "loner". A second problem pertains to the study's cross-sectional design. With cross-sectional data, it is impossible to tell whether being a "loner" reduces delinquency or if low delinquency causes one to be a "loner." Despite these limitations, the results do suggest that low peer attachment does not *increase* delinquency as suggested by Hirschi's (1969) theory of social control.

More recently, Haynie (2002) also found that students isolated from peer friendship networks had no more delinquency than connected youth. Using a subsample ($N = 2606$) of the National Longitudinal Study of Adolescent Health (Add Health), Haynie found that youth lacking friendship ties were no more likely to participate in delinquency than non-isolated students. This analysis more accurately captured isolation through the use of detailed network data, but is limited in that it examined cases in only 12 of the 132 possible schools sampled by Add Health. Haynie restricted her analysis to these schools because only they had the multiple-wave network data necessary for her examination of peer group change. However, the relative infrequency of isolation limits the study's findings for that population. Nevertheless, the study agrees with Tolone and Tieman (1990) and finds no support for the hypothesis that low peer attachment increases delinquency.

Both of the above studies assume peer isolation is a homogeneous status, an assumption which may hide a more subtle reality. Specifically, a line of child development research finds that marginal children are divided into two groups: those having difficulty getting along with peers ("rejected") and those who are simply ignored by others their age ("neglected") [for a review see Parker & Asher 1987]. This distinction may equally apply to adolescent isolates. Some

teenagers may drift through school like ghosts, lacking friends but staying “below the radar” of those around them. Others may have constant peer difficulties and little support from positive school relationships. The dramatic differences in the lives of these two types of isolates may be related to future outcomes. If both types are present in an adolescent population and have opposing behavioral trajectories, combining them into one category potentially masks important associations. This effect may be particularly salient for delinquent outcomes because prior developmental research has only associated rejected children with antisocial outcomes (Fergusson et al. 1999; Kupersmidt, Coie & Dodge 1990; Laird 2000; Parker & Asher 1987). Exploring the possibility of a heterogeneous isolate population, as well as addressing the limitations of prior studies of isolate delinquency, is the focus of the current analysis.

Theories of Peer-Troubled Isolates

To this point, studies of marginal youth have been driven by theories of developmental psychology. These perspectives have focused on peer rejection in late childhood and found this condition related to subsequent behavioral disorders. Although their emphasis on childhood peer processes may make them inappropriate for predictions of adolescent peer rejection, developmental theories can provide a framework for the application of more general criminological approaches. Building upon the child development literature with ideas from general criminological theories may provide testable hypotheses for marginal adolescents and shed light on teenage peer processes and delinquent behavior.

Developmental researchers provide two general models explaining the relationship between childhood peer rejection and subsequent antisocial behavior (Parker & Asher 1987). First, rejection by peers may result from a stable individual characteristic (often expressed as aggressiveness) later resulting in increased antisocial behavior. Accordingly, any observed correlation between peer rejection and problematic behavior is regarded as spurious. In the familiar language of life-course perspectives, this model asserts that persistent population heterogeneity explains individual differences in antisocial behavior, making alternate explanations insignificant.

A second peer rejection model dismisses the spuriousness hypothesis and proposes that peer rejection directly or indirectly increases problematic behaviors net of prior behavior and individual propensities. Although theorists espousing this model generally agree with the assertion that peer rejection results from childhood aggressiveness, they also argue that rejection further contributes to children’s adjustment problems by (1) depriving them of opportunities to develop conventional social skills, (2) increasing their hostility

or (3) increasing the likelihood that they will associate with antisocial peers. The latter hypothesis is a central element in Patterson's (1982) social interactional model. He implicates association with delinquent peers as the primary mechanism connecting childhood rejection to adolescent antisocial behavior. In this way, he repeats the learning theory hypothesis that delinquent peers provide the attitudes, techniques, and role models necessary for individual delinquency.

Empirical analyses using the above models have provided mixed results. Studies have consistently found childhood aggression to be a fairly stable and strong predictor of later antisocial outcomes (Huesmann 1984; Loeber 1990; Olweus 1979; Robins 1966). However, childhood aggression has not been found to attenuate the effects of other predictors, including peer rejection. Such findings provide support for models asserting a direct affect of peer rejection on deviant behavior (Coie et al. 1995; Kupersmidt & Coie 1990; Lochman & Wayland 1994; Sampson and Laub 1993). Additional analyses, however, have failed to demonstrate a link between childhood peer rejection and increased association with delinquent peers during adolescence, particularly when controlling for childhood antisocial behavior (Dishion et al. 1991; Fergusson et al. 1999; Laird et al. 2001). It therefore remains unclear exactly what mechanisms connect childhood peer difficulties to increased adolescent delinquency.

An area unexplored by child development researchers, and one which may prove beneficial for understanding peer effects, is the relationship between *adolescent* peer problems and subsequent delinquent outcomes. Although it is tempting to extend child development theories to predict the effects of adolescent peer rejection, it is questionable whether their assumptions are appropriate for such an analysis. Peer processes may be quite dissimilar between childhood and adolescence. Changing school contexts, increased cross-sex relationships, and intellectual and physical maturation may differentially affect adolescent group formation and alter the influence of peer rejection on behavior. It is an empirical question if the scope of developmental theories extends to adolescent peer rejection. However, seeking predictions from general delinquency theories that assume similar processes across all ages may be more appropriate for the current analysis.

Child development hypotheses including peer rejection can be integrated with several prominent delinquency theories. The stable trait argument can be found in Gottfredson and Hirschi's (1990) theory of low self-control. Similar to theories emphasizing aggressiveness as the cause of life-course persistent offending, Gottfredson and Hirschi assert that delinquent behavior is a result of a stable trait originating in early childhood. For these authors, poor parenting causes children to develop low self-control manifested by impulsivity and minor acts of deviance (e.g., smoking, drinking, risk taking) in early adolescence. Because low self-control is the underlying cause for later delinquency, peer

rejection or association with delinquent peers are assumed to be unimportant predictors of subsequent behavior or the result of low self-control selecting individuals into those situations.

The hypothesis that peer rejection directly and indirectly affects delinquent outcomes is also consistent with expectations from general criminological theories. Theories stemming from a symbolic interactionist tradition, such as Matsueda's (1992) theory of differential social control, are consistent with models asserting negative peer contacts increase delinquency (see also Giordano, Cernkovich & Rudolph 2001; Heimer & Matsueda 1994). According to differential social control, an individual incorporates evaluations of significant others (including peers) into his or her own identity and draws upon this self-concept to determine future actions. The negative peer evaluations provided to rejected isolates would be expected to contribute to a deviant identity and increase the likelihood of both delinquent peer involvement and delinquency. In addition, delinquent peer involvement should directly affect future delinquency through peer pressure, role models, and learning delinquent attitudes.

Peer conflict leading to delinquency is also consistent with Agnew's (1992) general strain theory. This revised version of Merton's classic anomie theory emphasizes the role of negative personal relationships in the causation of juvenile delinquency. As Agnew (1992) states, "(s)train theory, then, is distinguished by its focus on negative relationships with others and its insistence that such relationships lead to delinquency through the negative affect — especially anger — they sometimes engender" (p. 49). General strain theory would thus predict that the stress, anger, and frustration resulting from negative peer interactions increases rejected isolates' future delinquency. It should be noted, however, that this relationship does not depend on delinquent peers. This departs from the emphasis placed on delinquent peers by social learning theory and Matsueda's (1992) theory of differential social control.

Together, self-control theory, differential social control theory, and general strain theory imply substantive hypotheses for marginal adolescents with peer conflict. In order to apply these hypotheses to the study of marginal adolescents, the following section presents a framework for operationalizing isolation and peer conflict. The resulting peer status typology frames the hypotheses tested in the subsequent analyses.

A Typology of Peer Status

My operationalization of peer status departs somewhat from methods adopted in prior studies. Child development researchers generally operationalize peer status using peer-provided liked and disliked nominations. In these analyses, researchers classify children with few liked and many disliked nominations as

FIGURE 1: A Typology of Peer Status

		Isolation	
		Friends	No Friends
Peer Trouble	Little Trouble w/Peers	Typical Adolescent	Invisible Isolate
	Significant Trouble w/Peers	Friends and Conflict (F&C)	Peer-Troubled Isolate

“rejected” and those with few liked and few disliked nominations as “neglected.” Missing from this operationalization, however, are individuals’ subjective experiences of peer interactions. For the criminological theories emphasizing negative peer interactions (e.g., general strain theory and differential social control), it is a person’s cognitive understanding of his or her peer relationships which are most important in determining subsequent outcomes. For differential social control, perceptions and meanings of social interactions are thought to shape an individual’s self-concept, and it is this self-concept which is most related to future behavior (Matsueda 1992). From this perspective, peer appraisals are only important insofar as they are subjectively understood by the individual. Agnew (1992) places a similar emphasis on subjective experiences. He explicitly states, “(s)train refers to negative or adverse relations with others. Such relations are ultimately defined from the perspective of the individual. That is, in the final analysis adverse relations are whatever individuals say they are (p. 54).” Ignoring an individual’s subjective definitions of peer relationships therefore misses the focal concern of these two theories.¹

The current study combines a subjective measure of peer conflict with sociometric friendship data, thereby simultaneously capturing individuals’ experiences of problematic peer interactions and locating the individual within a network of peer friendships. The *interaction* of subjective peer conflict and network isolation results in four categories of peer status (Figure 1). Individuals who lack peer friendship nominations and report significant trouble with others are labeled “peer-troubled isolates”, while isolated students without peer trouble are classified as “invisible isolates.” These categories are somewhat

analogous to the rejected and neglected categories of the child development literature. The third category, "friends and conflict" (F&C), captures those who are connected to friendship networks while also having conflict with peers. Unfortunately, this categorization makes it impossible to determine if F&C respondents are reporting peer conflict occurring with friends or with peers outside of their friendship networks. Regardless of the source of peer conflict, the F&C status provides an interesting contrast category for the marginal youth and may introduce results worthy of future investigation. The final category, "typical adolescents," captures the presumed majority of respondents who are connected to friendship networks and have minimal conflict with peers. Together, the peer status categories can be included in a model of delinquency and provide theoretically relevant hypotheses.

Hypotheses

I specify seven hypotheses relevant for this study. The first and second hypotheses are derived from the contrasting expectations of socialization and social control theories. Hypothesis 1 represents the socialization argument that isolates (both invisible and peer-troubled categories) lack access to delinquent attitudes, techniques, and role models, and therefore will have decreased future delinquency. Hypothesis 2 presents the competing hypothesis, derived from social control perspectives, that both types of isolates lack the constraining influence of conventional peer bonds and therefore have increased likelihoods of future delinquency.

Hypothesis 1: Isolated students will display more delinquency than students with friends.

Hypothesis 2: Isolated students will show less delinquency than connected students.

The third hypothesis stems from developmental research of marginal children and states that isolates without perceived peer trouble (invisible) have distinct background characteristics from peer-troubled isolates. In testing this hypothesis, the current study goes beyond previous research by including a variety of structural and individual characteristics. Some of these characteristics, such as race, socioeconomic class, sexuality, and disability, are associated with social stigma and may be particularly likely to lead to rejection by conventional peers (Goffman 1963). Together, a broad array of individual, family, and neighborhood characteristics may more accurately capture the roots of peer status and provide a stronger test of peer status' effects on subsequent behavior.

Hypothesis 3: Isolates with and without peer trouble will have different antecedents predicting those statuses.

The fourth and fifth hypotheses relate to the criminal trajectories of peer-troubled isolates. Stemming from symbolic interactionism and general strain theory, these hypotheses state that the joint occurrence of isolation and problematic peer encounters will (1) lead to increased strain or a deviant identity that increases the likelihood of criminal behavior and (2) push peer-troubled isolates away from conventional groups and toward involvement with delinquent peers.

Hypothesis 4: Peer-troubled isolates will have more delinquency than Invisible isolates as well as peer-connected students.

Hypothesis 5: Peer-troubled isolates will have increased likelihoods of delinquent peer involvement over other statuses.

The sixth hypothesis states that the direct effect of peer status on delinquency will be substantially mediated by delinquent peer associations. This hypothesis stems from socialization arguments and reflects the idea that deviant peers provide the attitudes, techniques, role models and opportunities for delinquent behavior. With regard to isolates, this hypothesis infers that delinquency depends on moving from a state of peer isolation to that of delinquent group membership.

Hypothesis 6: The effects of peer status on delinquency will be mediated by delinquent peer involvement.

The final hypothesis captures the spuriousness arguments put forth by developmental and self-control theories. It states that, net of the characteristics represented in the background variables, the direct effects of peer status on delinquency and delinquent peer involvement will be insignificant.

Hypothesis 7: Controlling for latent characteristics will reduce the peer status effects on subsequent delinquency to insignificance.

Data and Measures

The above hypotheses are tested using data from the National Longitudinal Survey of Adolescent Health (Add Health). The Add Health survey provides a comprehensive examination of the friendship networks and behaviors of a nationally representative sample of adolescents in grades 7-12 between 1994 and 1996. Enrolled students in 132 randomly selected schools were asked to nominate their five best male and female friends, allowing researchers to map complete friendship networks for 90,118 respondents. In addition, randomly selected students completed two extensive in-home interviews following the in-school survey. The first of these follow-ups was conducted approximately one year later ($N_{\text{wave 1}} = 20,745$), while the second took place approximately

TABLE 1: Variable Descriptive Statistics

	Source	Mean	Std. Dev.	Min	Max
Gang initiation	In-home (wave 2)	.05	.20	.00	1.00
Property crime	In-home (wave 2)	.16	.35	.00	3.00
Background and Control Variables					
Age	In-school	15.46	1.58	11.42	20.58
Female	In-school	.51	.50	.00	1.00
Black	In-school	.15	.36	.00	1.00
Hispanic	In-school	.05	.21	.00	1.00
Other race	In-school	.08	.26	.00	1.00
Physical disability	In-home (wave 1)	.02	.14	.00	1.00
Homosexual attraction	In-home (wave 1)	.06	.23	.00	1.00
Intact family	In-home (wave 1)	.57	.50	.00	1.00
Welfare	In-home (wave 1)	.07	.25	.00	1.00
Family SES	In-home (wave 1)	5.85	2.48	.00	10.00
Concentrated disadvantage	1990 census	-.02	.92	-1.26	6.45
Immigrant population	1990 census	-.28	.60	-.93	4.60
Residential stability	1990 census	.08	.78	-3.77	2.20
New to school	In-school	.27	.44	.00	1.00
Prior fighting	In-school	.80	1.07	.00	4.00
Prior delinquency	In-school	1.14	.99	.00	6.00
Parent attachment	In-school	4.72	.60	1.00	5.00
Grades	In-school	2.84	.73	1.00	4.00
Depression	In-school	1.19	1.16	.00	4.00
Nmber of out-of-school friends	In-school	1.28	2.05	.00	10.00
	Peer statuses				
Peer-troubled isolate	In-school				
+ In-home (wave 1)		.01	.10	.00	1.00
Invisible isolate	In-school				
+ In-home (wave 1)		.04	.19	.00	1.00
Friends and conflict (F&C)	In-school				
+ In-home (wave 1)		.16	.36	.00	1.00

Notes: (Weighted) statistics are based on wave 2, N = 9,624.

two years later ($N_{\text{wave } 2} = 14,738$). The result is a longitudinal dataset covering a wide array of adolescent behaviors in multiple contexts.

Sample

The data for this analysis were drawn from the in-school and two in-home interviews. Of the 20,745 students who completed the wave 1 survey, 18,924 cases had poststratified sample weights necessary for national estimates. Of these

respondents, 5,459 did not complete the in-school survey, were not on the school roster, or attended a school which did not collect network data. The remaining 13,465 wave 1 cases were available for analysis.

The number of respondents who completed wave 1 but were missing from wave 2 was quite high (29%). However, the majority of these missing cases were high school seniors not followed upon graduation. The loss of the graduating cohort does not affect the distributions of variables relevant to this study. Of those who completed the in-school and wave 1 instruments, 9,624 also completed the wave 2 survey, had sample weights, and were available for analysis.²

Concepts and Measures

The study's dependent variables are (1) isolation, (2) trouble with peers, (3) future delinquent group involvement, and (4) future delinquent behaviors. Descriptions of constructed measures are listed in Appendix A with descriptive statistics (adjusted for poststratification weights) given in Table 1. To capture the status of isolation, I use the friendship network data taken during the in-school survey. Students are classified as isolated if (1) no one in the school identified the individual as a friend, and (2) the student reported no friends outside of the school.³ Individuals fulfilling these requirements have no reciprocated friendships within the school and no outside peer ties, effectively resulting in peer isolation. Approximately 5% ($N = 661$) of the sample fall into this status at wave 1.

Subjective trouble with peers is measured by respondents' answer to the question "In the last 12 months, how often have you had trouble getting along with other students?" Having weekly or greater problems with peers is used to distinguish individuals with and without peer conflict ($N = 2,007$).^{4,5} Interacting this dichotomous peer trouble measure with the measure of isolation creates the four status categories listed in figure 1. Isolates with peer trouble are classified as "peer-troubled isolates" ($N = 135$) while those without peer trouble are classified "invisible isolates" ($N = 526$). The majority of the sample are peer-connected youth who do not report peer problems and are considered "typical adolescents" ($N = 10,933$). The remaining respondents ($N = 1,872$) received friendship nominations but also report peer difficulties and are classified as "friends and conflict" (F & C).

Aside from predicting peer status, the study's other dependent variables are delinquent peer associations and future delinquency. Ideally, peer delinquency would be measured from the self-reported behaviors of an individual's friends. However, the sociometric data required for such a measure is only available for a limited number of schools at wave 2. Given the relative infrequency of isolation, I instead rely on a measure applicable to the entire sample: initiation into a known gang.⁶ A focus on gang involvement limits the analysis to the

subset of individuals entering named and identifiable delinquent groups, but as Warr (2002) states, “what is true of delinquent groups — unclear and shifting role assignments and role definitions, predominantly same sex composition, constantly changing membership — is ordinarily true of gangs as well” (6). Therefore, gang membership should be an indicator of increased associations with delinquent peers even though it clearly does not encompass all such relationships.

Future delinquency is the final dependent variable. Add Health measures delinquency at wave 2 with an index of 14 self-reported delinquent activities, including graffiti, stealing, fighting, and selling drugs. Note, however, that predicting violent behavior may invoke a tautology with respect to the peer status measure of peer conflict (i.e. “trouble with peers” may imply fighting). Therefore, I focus on property crimes as the delinquent outcome. I create an index from the mean of six items: (1) paint graffiti, (2) deliberately damage property, (3) take from store without paying, (4) steal something less than \$50, (5) burglary, and (6) steal something greater than \$50. The index yields a Cronbach alpha of .77.

Independent Variables

The set of independent variables measure concepts of structural position, personal characteristics and neighborhood disorganization thought to affect peer status and delinquency either directly or indirectly. Although by no means exhaustive, they include concepts research has consistently found associated with increased delinquency or stigmatization. Some of the background variables (i.e., intact family, welfare, family socioeconomic status [SES], permanent physical disability, and homosexuality) were measured at wave 1, contemporaneously with measures of peer isolation. This means that I cannot use the temporal ordering of the measures to rule out reciprocal causality between background measures and peer outcomes. However, these background variables are relatively stable, and therefore I can safely rule out the possibility that they are affected by peer isolation.

Race, ethnicity, gender, intact family, and age are straightforward measures similar to those of previous studies. Socioeconomic status was constructed from youth reports of parent(s) education and occupation. A measure of welfare was also included to capture extreme economic disadvantage. The correlation between SES and welfare ($-.278$) was low enough to include both concepts in the analyses. Two individual characteristics associated with stigma, homosexual attraction and physical disability, were also included as possible causes of social isolation or peer difficulties.

Two final individual-level measures, “new to school” and “number of out-of-school friends,” control for concepts potentially relating to established friendship networks. “New to school” identifies students in their first year at

the schools where they completed the in-school questionnaire. Controlling for new students is important for two reasons. First, moving to a new environment may disrupt established friendship networks and lead to a temporary period of isolation that is substantively different from that experienced by “peer-troubled” or “invisible” isolates (Weiss 1973). Second, students new to their school may not have been added to the school rosters and would therefore be unavailable for peer friendship nomination even though they are connected to peer networks.

In addition to a measure of new school attendance, I also include a self-reported measure of the number of friends outside of school. Because I operationalize isolates as having no out-of-school friendships, this measure will be inconsequential for isolated students. However, connections with outside networks may distinguish typical from F&C youth and relate to subsequent behavior for these respondents.

Aside from individual and family measures, I also control for three community-level measures related to Shaw and McKay’s (1942) theory of social disorganization. Measures of neighborhood context have consistently been found related to delinquent outcomes, particularly gang involvement (see Sampson et al. 2002, for review). Not including these concepts could therefore overestimate the effects of my variables of interest and potentially miss an important link predicting the causes and consequences of peer isolation. I follow Sampson et al.’s (1997) strategy of constructing social disorganization variables from census data and conducting a factor analysis to determine linear combinations of related block-group level variables. Consistent with disorganization theory, three distinct factors emerged capturing the concepts of neighborhood poverty, ethnic heterogeneity, and residential stability (see Appendix B). Factor score regression weights were calculated and used to construct weighted composites. As expected, poverty and ethnic heterogeneity are positively correlated (.08) and these variables are negatively associated with neighborhood stability (–.20 and –.36, respectively).

The remaining control variables capture concepts significant for the hypotheses of spuriousness advanced by control theory and developmental perspectives.⁷ Specifically, a measure of prior fighting corresponds to aggression as an underlying cause of peer trouble and delinquent outcomes. Similarly, an index of prior delinquency (Cronbach = .76) measures drinking, smoking, minor delinquency, and risk-taking behaviors that Gottfredson and Hirschi (1995) argue best measure the concept of low self-control. In addition, recent research has shown depression to be linked to low peer attachment and increased delinquency (De Coster & Heimer 2001; Thoits 1984). I therefore include a measure for this concept in all of my models. Finally, school commitment (grades) and perceptions of caring parents are introduced to

TABLE 2: Multinomial Logistic Regression of Peer Status (Wave 1)

	Peer-Troubled (PT) ^a			Invisible (I) ^a			Friends and Conflict (F&C) ^a			PT vs. I		PT vs. F&C		I vs. F&C	
	β	(S.E.)	Odds Ratio	β	(S.E.)	Odds Ratio	β	(S.E.)	Odds Ratio	Sig. Level	Sig. Level	Sig. Level			
Age	-.04	(.09)	.96	.02	(.05)	1.02	-.13***	(.02)	.88					*	
Female	-.86**	(.32)	.42	-.44***	(.15)	.65	-.05	(.07)	.95			***		***	
Black	-.39	(.39)	.68	.32	(.22)	1.37	.08	(.17)	1.08		†				
Hispanic	.00	(.50)	1.00	-.21	(.32)	.81	.05	(.17)	1.05						
Other race	-.90†	(.52)	.41	.16	(.22)	1.17	-.14	(.13)	.87		*				
Disabled	.59	(.62)	1.80	.25	(.43)	1.31	.67**	(.21)	1.95						
Homosexual attract	-.29	(.51)	.75	.27	(.27)	1.32	.17	(.15)	1.19						
Intact family	-.14	(.34)	.87	-.30*	(.15)	.74	-.03	(.08)	.97						
Welfare	.73*	(.36)	2.06	-.18	(.28)	.84	-.12	(.14)	.89		*	*		*	
Family SES	-.16**	(.06)	.86	-.09*	(.03)	.91	-.04*	(.02)	.96						
Concentrated disadvantage	-.12	(.15)	.89	.07	(.08)	1.07	.06	(.06)	1.07						
Immigrant population	-.10	(.18)	.90	.16*	(.08)	1.17	-.15*	(.07)	.86					***	
Community stability	-.21	(.18)	.81	-.08	(.09)	.92	-.08	(.05)	.92					***	
New to school	-.01	(.34)	.98	.34*	(.15)	1.41	-.23**	(.08)	.80					**	
Prior fighting	.22†	(.12)	1.25	.12†	(.06)	1.13	.19***	(.03)	1.21					*	
Prior delinquency	-.22†	(.12)	.81	-.19*	(.09)	.83	.03	(.04)	1.03			†			
Parent attachment	-.44***	(.13)	.65	.08	(.11)	1.09	.00	(.06)	1.00		**	**			
Grades	-.22	(.15)	.80	-.19*	(.08)	.83	-.21***	(.05)	.81					***	
Depression	-.02	(.13)	.98	.02	(.07)	1.02	.22**	(.03)	1.25			*		***	
Out-of-school friends	-.33.0***	(.15)	.00	-.33.1***	(.10)	.00	.03*	(.02)	1.04						
Constant	.73			-1.62			.66								
F-Statistic df (60,69)	3411.57***														

(N = 13,292)

(N = 13,292)

^a Omitted category is typical adolescent.

† p < .10 * p < .05 ** p < .01 *** p < .001

capture the concepts of commitment to school and attachment to parents in Hirschi's (1969) theory of social control.

Results

The complex design of the Add Health study makes standard estimation techniques inappropriate (see Chantala & Tabor 1999). Because students are clustered in schools, cases cannot be assumed independent, which can result in biased unadjusted standard errors. Additionally, oversampling based upon race, disability and sibling relationship creates unequal probabilities of selection that, if ignored, may bias coefficient estimates. To correct for these design effects, I use the statistical package Stata's SURVEY commands in all analyses.⁸ These commands allow for the inclusion of clustering variables as well as post-stratification weights, thereby providing results with unbiased standard errors and reducing potential selection bias.

Pathways to Peer Status

Table 2 presents unstandardized parameter estimates and odds ratios for a multinomial logistic regression of peer status on the background factors. As Long (1997) states, the multinomial logistic procedure can be thought of as a set of binary logit regressions estimated for all possible comparisons between nominal outcomes. In the current models, I make comparisons between the predictors of the four peer status categories. The results listed in Table 2 compare the isolated and F & C categories to the omitted category, typical adolescents.⁹ By altering the omitted category, I was able to capture all of the peer status contrasts between categories. To conserve space, I report only the significance levels for other group differences in the final three columns of Table 2.¹⁰ Estimates and standard errors for the unlisted contrasts are available from the author upon request.

Recall that a central question for this study is whether isolates are a mixed population with distinct antecedents and trajectories. Results from the multinomial logistic regression suggest that this is the case: peer-troubled isolates do differ from invisible isolates in several key areas. Specifically, being nonblack, not of Other race (Asian, American Indian, etc.), from a welfare family, and having weak parent attachment significantly increases the likelihood of being a peer-troubled versus an invisible isolate. These findings support the developmental hypothesis that isolates are indeed a nonhomogeneous population. Furthermore, they implicate social characteristics, such as socioeconomic class and family processes, in the formation of marginal peer status.

Aside from their differences, peer-troubled and invisible isolates also share several antecedents. Low levels of prior delinquency are more likely to be

associated with peer-troubled or invisible isolation than the peer-connected categories. This finding suggests that neither group is characterized by low levels of self-control as defined by Gottfredson & Hirschi (1990). However, prior fighting does increase the odds of being a peer-troubled or invisible isolate over a typical adolescent ($p < .10$). In the case of peer-troubled isolates, this finding appears to lend support to developmental theories emphasizing aggression as a precursor to peer rejection. However, it is difficult to discern if the violence reported by isolates results from aggression on their part or victimization by others. It is equally possible that a lack of peer support makes isolates easy targets for peer abuse, or that isolates preemptively strike out against peers and entrench themselves in an isolated status. Without more detailed measures, all that may be safely said is that those involved in fights are more likely to be isolated.

Peer-troubled and invisible isolates are also similar in gender, family SES and number of out-of-school friends. Males are significantly more likely to be in the peer-troubled or invisible categories than the typical category. Additionally, youth with lower SES are more likely to be peer-troubled, invisible, or F&C than a typical adolescent. The negative relationship between school commitment and invisible isolation is particularly interesting, as it dispels any preconception that these individuals are “nerds” who make up for a lack of peer relationships with studious behavior. In addition, the finding that low SES is associated with the isolated and F&C categories adds to the argument that economic class plays a substantial role in shaping peer interactions. This relationship appears especially true for peer-troubled isolates who are the most likely group to be associated with poverty. Finally, the isolated categories are similar to one another with regard to their number of out-of-school friends. This finding is true by definition as I have operationalized the isolated groups as lacking both in-school and out-of-school nominations.

Interestingly, the predictors included to capture stigmatizing characteristics (i.e., homosexuality, physical disability, and depression) are not associated with the peer isolated categories. These characteristics are, however, positively associated with the F & C status. In particular, physical disability and depression are strong and significant predictors of students with friends and peer conflict. These results suggest that stigmatizing traits do not prevent individuals from entering friendship networks, even though stigmatized individuals may perceive their peer relationships as problematic. Again, it is uncertain where peer conflict arises for F & C adolescents. One could speculate that F & C adolescents possessing stigmatizing characteristics have conflict with peers outside their friendship networks, but it is equally possible that stigmatized youth have trouble with the same peers nominating them as friends. Without more specific measures, this analysis must remain agnostic in its interpretation of results for the F & C category. Other findings of interest for this category, however, are that students who nominate more friends outside of school and who are not new

to the school are more likely to be F & C. Again, it is difficult to discern causality here without further investigation

The model's remaining variables, including neighborhood characteristics, age, and Hispanic origin, do little to distinguish peer status categories. On these characteristics, youth appear similar regardless of their friendship networks and peer relationships.

In sum, several background factors appear to differentiate the four categories of peer status. In particular, poverty status and weak parent attachment distinguish the two isolated statuses (i.e., invisible and peer-troubled) from each other. The association of poverty and problematic parent relations with peer-troubled isolation provides important clues for status formation and may help explain subsequent delinquent outcomes. To examine the possibility that peer status also affects delinquency, the analysis now turns to the prediction of gang initiation and property crime.

Trajectories of Isolation

I use self-reported gang membership as a measure of increased affiliation with delinquent peers. The gang initiation variable is a binary measure of a respondent's entry into a known gang prior to wave 2. Given that the dependent variable is dichotomous, I estimate models using a logistic regression procedure. Table 3 lists the unstandardized coefficients and odds ratios for two logistic regression models predicting gang initiation. Because I am interested in distinguishing between the independent effects of isolation and trouble with peers and the interaction between these concepts, I have included variables for the main effects in Model 1 and added an interaction term in Model 2.¹¹ This method allows for comparison between the peer status categories (i.e. peer-troubled isolates, invisible isolates, typical and F&C) as well as identification of the direct effects of isolation and peer conflict.

Looking first at the background and control variables, there are few surprises with respect to gang initiation. Females are significantly less likely to join a gang than males. Age has a significant negative effect on gang initiation, suggesting gang entry occurs earlier in adolescence and declines thereafter. Not surprisingly, increased prior fighting, delinquency, having friends outside of school, and poor grades are also associated with gang initiation, as is being of Hispanic origin, being of other racial background (e.g., Native American, Asian etc.), and living in a disadvantaged neighborhood. A finding which is somewhat unexpected, however, is that respondents reporting homosexual attraction are somewhat more likely ($p < .10$) to join a gang than those not reporting same-sex attractions. One explanation for this effect may be that negative labeling increases homosexuals' assumption of a deviant role and subsequent associations with delinquent peers. Further investigation with alternate data sets may help

TABLE 3: Logistic Regression of Gang Initiation (Wave 2)

	Model 1			Model 2		
	Coef.	(S.E.)	Odds Ratio	Coef.	(S.E.)	Odds Ratio
Age	-.09*	(.04)	.92	-.09*	(.04)	.91
Female	-.56**	(.19)	.57	-.55**	(.20)	.58
Black	-.08	(.27)	.92	-.03	(.26)	.97
Hispanic	1.22***	(.26)	3.38	1.24***	(.26)	3.45
Other Race	.74***	(.21)	2.09	.77***	(.21)	2.16
Disabled	.29	(.44)	1.33	.37	(.41)	1.44
Homosexual attract	.38†	(.23)	1.47	.40†	(.23)	1.50
Intact family	-.19	(.18)	.83	-.21	(.18)	.81
Welfare	-.08	(.25)	.92	-.14	(.26)	.87
Family SES	.00	(.04)	1.00	.00	(.04)	1.00
Concentrated disadv.	.30***	(.10)	1.35	.30**	(.10)	1.36
Immigrant population	.01	(.11)	1.01	.01	(.11)	1.01
Community stability	.02	(.12)	1.02	.02	(.12)	1.02
New to school	.11	(.15)	1.12	.12	(.17)	1.12
Prior fighting	.22***	(.06)	1.24	.22***	(.06)	1.24
Prior delinquency	.28***	(.05)	1.32	.29***	(.05)	1.33
Parent attachment	.02	(.09)	1.02	.02	(.09)	1.02
Grades	-.26**	(.09)	.77	-.26**	(.09)	.77
Depression	.00	(.07)	1.00	.00	(.07)	1.00
Out-of-school friends	.11***	(.03)	1.12	.11***	(.03)	1.12
Isolation	.11	(.38)	1.11	-.48	(.49)	.62
Peer trouble	.46**	(.17)	1.59	.40*	(.19)	1.49
Isolation x Peer trouble				2.06**	(.71)	7.8
Constant	-2.09			-2.04		
F-Statistic ^a	(22,107)	12.47***		(23,106)	12.55***	

(N = 9586)

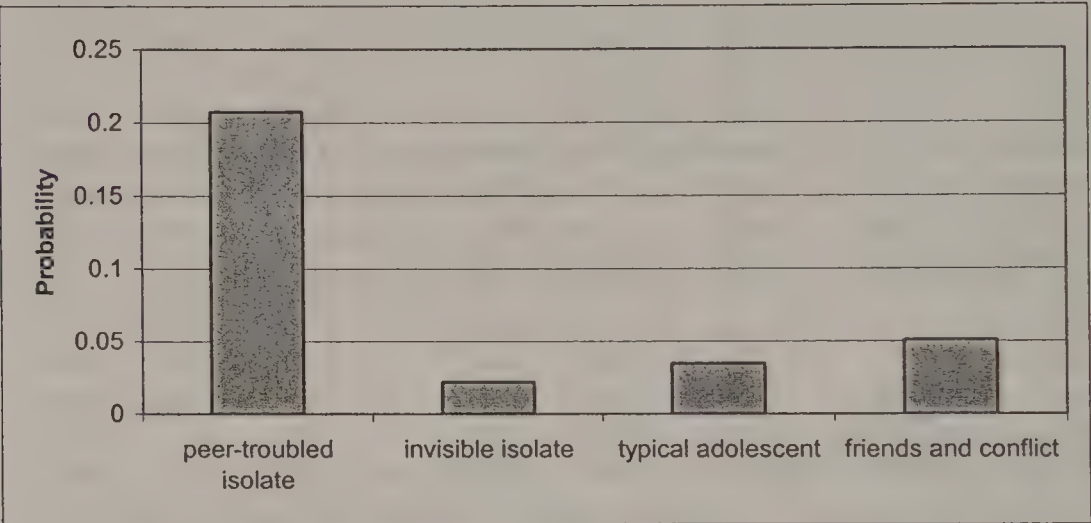
^a Degrees of freedom listed in parentheses

† p < .10 * p < .05 ** p < .01 *** p < .001

explain this finding. The remaining control variables show no relationship to gang initiation net of other covariates, although their signs generally follow theoretical expectations.

Turning to the main effects of isolation and peer trouble, we find that, of the two concepts, only peer conflict is a significant predictor of gang initiation. Net of the background variables, having weekly or greater difficulties getting along with peers increases the likelihood of joining a gang by 59%. In contrast, isolation at time 1 appears to be unrelated to gang initiation. At first glance,

FIGURE 2: Gang Initiation (Wave 2) Predicted Probabilities by Peer Status Category



this latter finding suggests that isolated adolescents do not drift toward future delinquent associations. However, the hypothesis advanced earlier states that increased delinquent friendships among isolates is conditional on the presence of negative peer contacts. Modeling this effect requires the inclusion of an interaction term between the two variables.

Model 2 adds the isolation/peer trouble interaction. As can be seen, the interaction is strong and significant, indicating that isolation in conjunction with peer trouble is associated with a large increase in gang initiation at time 2. Furthermore, the inclusion of an interaction term changes the sign of the main effect for isolation, suggesting that isolates without peer trouble actually have lowered likelihoods of joining a gang than typical adolescents. These effects may be better illustrated graphically. Figure 3 displays the predicted probabilities associated with the four combinations of isolation and peer trouble, holding all other covariates at their means. Isolates with peer trouble have approximately a 20% chance of joining a named gang. This probability is more than five times that of the typical adolescent with friends and few peer problems. In addition, isolates without peer trouble (invisible), are the least likely of the peer statuses to join a gang. Invisible isolates' chances of joining a gang are approximately one-and-a-half times lower than the typical adolescent. Although peer-connected youth with peer trouble (F&C), have a higher chance

TABLE 4: Tobit Regression of Property Crime (Wave 2)

	Model 1		Model 2	
	Coef.	(S.E.)	Coef.	(S.E.)
Age	.45*	(.20)	.46*	(.20)
Age ²	-.02**	(.01)	-.02**	(.01)
Female	-.10***	(.03)	-.10***	(.03)
Black	-.09†	(.05)	-.09†	(.05)
Hispanic	.19**	(.07)	.19**	(.07)
Other race	.11*	(.05)	.11*	(.05)
Disabled	-.02	(.09)	-.02	(.09)
Homosexual attract	.20**	(.07)	.20**	(.07)
Intact family	-.03	(.03)	-.03	(.03)
Welfare	.01	(.06)	.01	(.06)
Family SES	.02**	(.01)	.02**	(.01)
Concentrated disadv.	-.03	(.02)	-.03	(.02)
Immigrant population	.04	(.02)	.04*	(.02)
Community stability	-.02	(.02)	-.02	(.02)
New to school	.01	(.04)	.01	(.04)
Prior fighting	.02†	(.01)	.02†	(.01)
Prior delinquency	.17***	(.02)	.17***	(.02)
Parent attachment	-.04†	(.02)	-.04†	(.02)
Grades	-.01	(.02)	-.01	(.02)
Depression	.00	(.01)	-.00	(.01)
Out-of-school friends	.01	(.01)	.01†	(.01)
Isolation	-.15†	(.08)	-.18*	(.09)
Peer trouble	.22***	(.04)	.21***	(.04)
Isolation x Peer trouble	.33*		(.16)	
Constant	-3.47		-3.53	
F-Statistic ^a	(23,106)	17.88***	(24,107)	20.82***

(N = 9591)

^a Degrees of freedom listed in parentheses

† p < .10 * p < .05 ** p < .01 *** p < .001

of joining a gang than the typical adolescent, this difference is negligible when compared with the probability associated with peer-troubled isolates.

In sum, it appears that isolation in and of itself does not increase delinquent associations, but that when combined with peer trouble the likelihood of gang initiation dramatically increases. Such findings provide general support for the idea that it is the joint experience of isolation and problematic peer encounters that push adolescents toward contact with deviant others. What remains

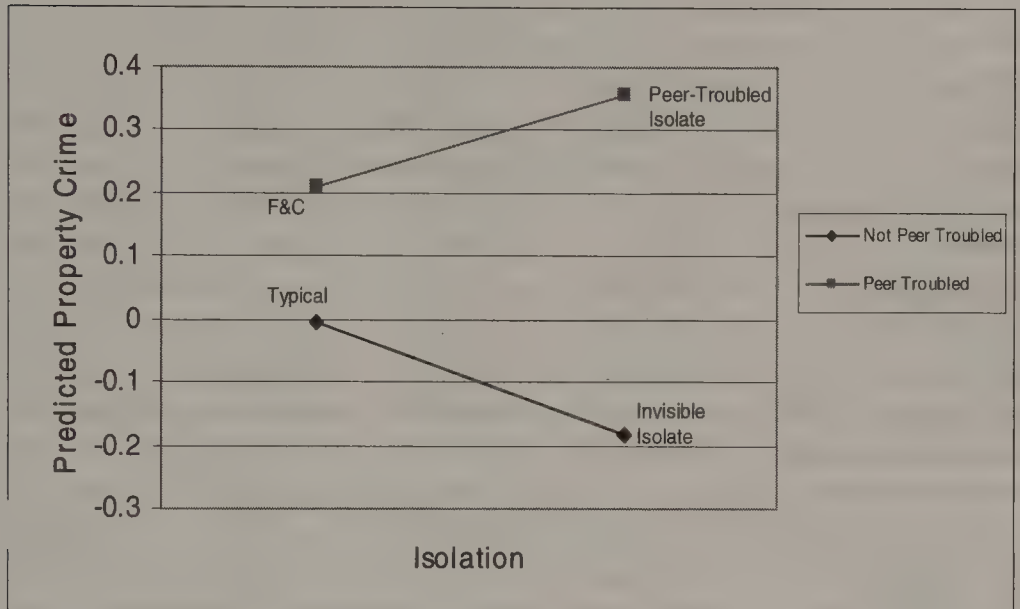
unanswered is if isolation and/or peer trouble are also associated with increased individual delinquency. The following section addresses these questions.

Predicting Property Crime

The property crime variable is a continuous measure that is truncated at zero. To avoid potential bias due to censoring from below, I estimated a tobit regression model. Table 4 presents the unstandardized coefficient estimates of property crime regressed on peer status and other covariates. The table presents two models. The first includes the background variables and main effects for isolation and peer trouble while the second adds an interaction term between the latter two concepts. Both models also contain a quadratic term for age to capture an observed nonlinear relationship between age and delinquency.

Before turning to the variables of interest, we can first identify several background covariates that significantly predict property crime. Net of other variables, (1) age shows an inverted u-shaped relationship with respect to property crime, (2) females commit significantly fewer property crimes than males, (3) parent attachment has a marginally significant ($p < .10$) negative effect on property crime, and (4) Hispanics and those in the other race category commit significantly more property crimes than whites. In addition, family SES is also positively associated with property crime. This appears a counterintuitive finding, as it suggests adolescents from higher income homes commit more theft and vandalism. However, this parameter is net of welfare and of the endogenous covariates, such as prior fighting, delinquency and parent attachment, which may intervene between SES and property crime. An examination of the bivariate and reduced-form effects shows SES to be an insignificant predictor of property crime. Homosexual attraction is also significantly related to property crime. Like the similar finding with regard to gang initiation, I did not expect to find homosexuality positively associated with delinquency and this link deserves further investigation. Finally, and not surprisingly, prior delinquency and prior fighting ($p < .10$) also predict increased property offending. These variables capture much of the stability associated with delinquent and associated behaviors (e.g., violence) and are therefore expected to show strong relationships to subsequent behaviors.

Moving to the main effects of isolation and peer trouble, we observe a similar pattern to that observed in the gang initiation analysis. Having trouble with peers is a strong and significant predictor of future property crime while isolation appears to have a marginally significant ($p < .10$) negative relationship to this behavior. With regard to the main effect for isolation, there appears to be little evidence for the hypothesis derived from social control theory that low peer attachment predicts increased delinquency. If anything, the negative coefficient for isolation suggests that isolates as a group have less than average

FIGURE 3: Property Crime Estimates (Centered on Zero) by Isolation and Peer Trouble

rates of property offending. What remains unclear, however, is if the effect of isolation on property crime is conditional on problematic peer encounters. It could be that the insignificant effect of isolation masks differential predictions for two distinct categories within the isolated population.

Model 2 addresses this issue by including the interaction between isolation and peer trouble. As can be seen in Table 4, the interaction term is positive and significant, suggesting that, net of other covariates, the effect of isolation on property crime increases with increasing peer trouble. Figure 4 graphs the estimated differences in property crime between the peer status categories. Holding all other covariates at their means, isolates without peer trouble (invisible) commit significantly fewer property crimes than typical students, whereas peer-troubled isolates commit significantly more property crimes than the typical adolescent. This relationship again emphasizes the apparent dichotomy within an isolated population and points to trouble with peers as a risk factor for delinquency.

These findings have important implications for our theoretical hypotheses. First, there appears to be little evidence that low peer attachment increases delinquency in and of itself. Contrary to control theory, the majority of isolates (those without peer trouble, "invisible") commit significantly fewer property crimes than other students. This finding also controls for other bonds and

TABLE 5: Tobit Regression of Property Crime including Gang Initiation (Wave 2)

	Model 1		Model 2	
	Coef.	(S.E.)	Coef.	(S.E.)
Age	.46*	(.20)	.40*	(.19)
Age ²	-.02**	(.01)	-.02**	(.01)
Female	-.10***	(.03)	-.08***	(.03)
Black	-.09†	(.05)	-.08†	(.05)
Hispanic	.19**	(.07)	.11**	(.07)
Other race	.11*	(.05)	.07*	(.04)
Disabled	-.02	(.09)	-.03	(.08)
Homosexual attract	.20**	(.07)	.17**	(.06)
Intact family	-.03	(.03)	-.03	(.03)
Welfare	.01	(.06)	.01	(.06)
Family SES	.02**	(.01)	.02**	(.01)
Concentrated disadv.	-.03	(.02)	-.05	(.02)
Immigrant population	.04*	(.02)	.04*	(.02)
Community stability	-.02	(.02)	-.02	(.02)
New to school	.01	(.04)	.01	(.04)
Prior fighting	.02†	(.01)	.01†	(.01)
Prior delinquency	.17***	(.02)	.15***	(.02)
Parent attachment	-.04†	(.02)	-.04†	(.02)
Grades	-.01	(.02)	-.01	(.01)
Depression	.00	(.01)	-.01	(.01)
Out-of-school friends	.01†	(.01)	.01†	(.01)
Isolation	-.18*	(.09)	-.17*	(.08)
Peer trouble	.21***	(.04)	.19***	(.04)
Isolation × Peer trouble	.33*	(.16)	.19	(.18)
Gang initiation, wave 2			.80***	(.06)
Constant		-3.53		-3.16
F-Statistic ^a		(24,107) 20.72***		(25,104) 30.15***
(N = 9591)				

^a Degrees of freedom listed in parentheses

† p < .10 * p < .05 ** p < .01 *** p < .001

related control variables. Although isolates with peer conflict commit significantly more property crimes than typical adolescents and invisible isolates, this result appears to depend less on low peer attachment than on the *interaction* of low peer attachment with peer conflict. The combination of isolation with peer trouble appears to be an important predictor of delinquent behavior and association with delinquent peers. Peer conflict alone does increase property crime, but when combined with marginal status its effect on delinquency is

amplified. This association between isolation, peer conflict, and property crime lends further support to theories such as symbolic interactionism, general strain theory, and Patterson's (1982) social interactional model that emphasize the effects of peer evaluations on future deviance.

The findings also have implications for arguments asserting that peer effects on delinquency are spurious and explained by stable traits. Although prior minor delinquency was the strongest predictor of current property crime (with a standardized coefficient more than twice that of any other covariate), the effects of the peer status coefficients and several other covariates remain significant in the presence of prior delinquency and suggest that changes in property crime may be attributed to factors other than persistent population heterogeneity.¹²

Overall, the analysis of property crime provides results similar to those of gang initiation with respect to the proposed hypotheses. Peer-troubled isolates commit more property crimes than other students net of the background and control variables. In addition, the low delinquency among invisible isolates fails to provide evidence of weak peer attachment causing crime. Furthermore, although the low crime among invisible isolates supports a socialization approach, the increased delinquency among peer-troubled isolates is problematic and requires elaboration. It is possible that the delinquency among peer-troubled isolates is explained by their involvement with deviant peers. This would be consistent with learning theories, which predict that the majority of the effect of peer status on delinquency would occur indirectly through delinquent peers. Therefore, I now address the possibility that delinquent peers mediate the link between peer status and delinquency.

Gang Initiation and Property Crime as Potential Mediators

The models presented above measure the total effects of isolation and peer conflict on gang initiation and property crime. Missing from these models are decompositions of total effects into direct and indirect effects, including (1) indirect effects of peer status on delinquency through gang initiation and (2) indirect effects of peer status on gang initiation through delinquency. These effects are particularly relevant for the socialization and selection hypotheses. It is possible that peer status has little direct impact on property crime net of gang initiation. Such a finding would be consistent with a socialization argument emphasizing the causal role of delinquent peers in delinquent behavior. Conversely, delinquency mediating the effect of peer status on gang initiation would be in accord with the selection hypothesis advanced by control theories. This finding would suggest individuals select into delinquent groups based upon previous delinquent behavior. Although challenging in the current model, disentangling these direct effects from indirect effects is important for understanding the consequences of peer status on delinquent outcomes.

TABLE 6: Logistic Regression of Gang Initiation including Property Crime (Wave 2)

	Model 1			Model 2		
	Coef.	(S.E.)	Odds Ratio	Coef.	(S.E.)	Odds Ratio
Age	−.09*	(.04)	.91	−.04	(.04)	.96
Female	−.55**	(.20)	.58	−.49*	(.20)	.61
Black	−.03	(.26)	.970	.10	(.27)	1.11
Hispanic	1.24***	(.26)	3.45	1.28***	(.28)	3.60
Other race	.77***	(.21)	2.16	.74**	(.22)	2.09
Disabled	.37	(.41)	1.44	.39	(.46)	1.48
Homosexual attract	.40†	(.23)	1.50	.12	(.23)	1.13
Intact family	−.21	(.18)	.81	−.18	(.18)	.84
Welfare	−.14	(.26)	.87	−.25	(.28)	.78
Family SES	.00	(.04)	1.00	−.02	(.04)	.98
Concentrated disadv.	.30**	(.10)	1.36	.35**	(.10)	1.42
Immigrant population	.01	(.11)	1.01	−.07	(.12)	.93
Community stability	.02	(.12)	1.02	.03	(.13)	1.04
New to school	.12	(.17)	1.12	.06	(.16)	1.07
Prior fighting	.22***	(.06)	1.24	.20**	(.06)	1.22
Prior delinquency	.29***	(.05)	1.33	.17**	(.07)	1.19
Parent attachment	.02	(.09)	1.02	.06	(.10)	1.06
Grades	−.26**	(.09)	.77	−.34**	(.10)	.71
Depression	.00	(.07)	1.00	.05	(.07)	1.05
Out-of-school friends	.11***	(.03)	1.12	.08**	(.03)	1.09
Isolation	−.48	(.49)	.62	−.25	(.48)	.78
Peer trouble	.40*	(.19)	1.49	.23	(.21)	1.26
Isolation x Peer trouble	2.06**	(.71)	7.86	2.04**	(.73)	7.72
Property crime, wave 2				1.62***	(.12)	5.07
Constant		−3.53			−3.10	
F-Statistic ^a		(24,107) 20.82***			(25,106) 26.46***	
(N = 9,586)						

^a Degrees of freedom listed in parentheses

† p < .10 * p < .05 ** p < .01 *** p < .001

The contemporaneous measurement of property crime and gang initiation poses a problem for estimating indirect peer status effects. With contemporaneous measures, we cannot rely on the temporal ordering of the data to infer causality. It is possible that (1) property crime unidirectionally affects gang initiation, (2) gang initiation unidirectionally affects property crime, or (3) both affect each other simultaneously. The latter possibility has

been specifically advocated by interactional theories of delinquency and has received modest empirical support (Matsueda & Anderson 1998; Thornberry et al. 1991). Such a specification combines the learning hypothesis (delinquent peers increase delinquency) with the selection hypothesis (delinquency increases the likelihood of delinquent peer associations). Analyses of reciprocal peer-delinquency relationships have generally relied on structural equation models incorporating lagged dependent variables, or have estimated simultaneous equations including an instrumental variable for each equation. Unfortunately, both of these solutions are not possible with these data. The Add Health study lacks a measure of gang initiation prior to wave 2, eliminating the possibility for estimating a structural model with lagged dependent variables. In addition, the identification of a suitable instrumental variable is traditionally difficult and appears no less formidable in the current study.

Although ignoring the potential reciprocal relationships between delinquency and delinquent peers is far from optimal, we may still gain leverage on indirect peer status effects by assuming unidirectional causation between gang initiation and property crime. Estimating a model where gang initiation affects property crime without feedback effects provides an upper bound for the gang initiation coefficient.¹³ This model provides biased estimates if the relationships are truly reciprocal, but does address the feasibility of gang initiation mediating the relationship between peer status and property crime. A similar analysis can be performed with respect to gang initiation. Estimating a model where property crime affects gang initiation without feedback effects provides an upper bound for the property crime coefficient.

Table 5 reports the coefficient estimates for a model of property crime including gang initiation as a covariate. As one would expect, gang initiation is a strong and significant predictor of property crime. As mentioned, however, this coefficient does not allow for a reciprocal relationship between gang initiation and property crime and therefore is probably upwardly biased. Of more importance for this study is the significant reduction of the isolation-peer conflict interaction coefficient with the introduction of gang initiation. This finding allows for the possibility that increased delinquency among peer-troubled isolates is explained by delinquent group membership and not a direct result of peer status. Although this finding depends on the problematic assumption of no feedback effects, it makes it impossible to reject the hypothesis that delinquent peers could be the mechanism explaining increased delinquency among peer-troubled isolates.

Turning to possible selection effects, Table 6 presents a model of gang initiation including prior delinquency as a covariate. As with the addition of gang initiation in the model of property crime, the property crime parameter is a strong and significant predictor of gang initiation. However, property crime does not reduce any of the effect of the interaction term on gang initiation. This suggests that property crime does not explain increased gang initiation

for isolates with peer conflict, even with the unidirectional assumption of delinquency causing gang initiation.

In sum, the exploration of indirect effects between peer status and delinquent outcomes offers several interesting but qualified findings. Gang initiation reduces much of the total effect of peer-troubled isolation on property crime, but this finding hinges on the assumption of a unidirectional effect of gang initiation on property crime. This leaves open the possibility that delinquent peers provide the mechanism explaining increased delinquency among peer-troubled isolates. A similar analysis of gang initiation failed to find property crime as significantly reducing the peer-troubled isolates coefficient, which suggests selection effects do not explain the relationship between peer-troubled isolates and gang initiation. Instead, a direct relationship exists between these concepts.

Conclusions

This project explored the roots of marginal peer status and its affects on delinquent outcomes. The analyses provided several important findings. First, it is evident that absolute isolation from peer friendships is a particularly rare event during adolescence. Less than five percent of the study's sample lacked both friendship nominations and ties outside of school. This group might be even smaller if individuals identified as isolates had friends absent during the in-school survey or had friends who, if given the option, would have listed them as their next nomination. The low number of isolates attests to the prevalence of positive peer relationships during adolescence and emphasizes the need for large samples to adequately study this population.

Second, adolescent isolation does not appear to be a homogeneous status. Examining the roots of peer status resulted in two distinct images of isolated students. One of these images, that of the invisible isolate, is of a male, likely from a broken home, who is disconnected from school and the students going there. He is not a delinquent, but does occasionally get into fights, most likely because he is victimized by other students. Although fights, poor grades, and lack of peer support make for a miserable school life, this individual's saving grace may be a supportive family. His connection with parents is strong, or at least as strong as the average teenager. It is this connection with parents which so distinguishes him from his peer-troubled counterpart.

The image of the peer-troubled isolate is bleaker than that of the invisible isolate. Like his invisible peer, the peer-troubled isolate is likely to be a male doing poorly in school and getting into fights. He is also not a delinquent. However, unlike the invisible isolate, this teenager most likely goes home to an economically disadvantaged family with strained parent relationships. With little support from parents or peers and bleak educational and economic

horizons, it is not surprising that this adolescent is moving on a path toward gang involvement and increased crime. Troubled both at school and at home, the gang may appear an island of social support, and the conditions for gang membership may be increased delinquency. For this individual, isolation is a potential turning point marking a future delinquent trajectory.

The picture of the peer-troubled isolate appears particularly consistent with the child development theory advanced by Patterson (1982). In his perspective of coercive family processes, Patterson speaks directly of peer rejection resulting from poverty and poor parenting. He argues that economic hardship places profound pressures on family life, which includes parental monitoring and discipline (Larzelere & Patterson 1990). Increased inept parenting is thought to stunt a child's social and academic skills, leading to peer-rejection, failure in school, and ultimately a drift toward delinquent peer groups (Patterson 1982; Patterson et al. 1984; Patterson & Dishion 1985). Although Patterson clearly focuses on adverse peer relations earlier in the life-course, his developmental sequence is remarkably consistent with the observed pattern for peer-troubled adolescents. In addition, the finding that isolates without peer problems *did not* have parent difficulties emphasizes problematic families as key predictors of poor peer relationships and later delinquent associations. In sum, it appears likely that Patterson's developmental sequence extends to the causes and consequences of adolescent marginalization.

Third, contrary to social control theory's expectations, weak peer attachment is not associated with increased delinquency. This finding replicates earlier studies of peer attachment and delinquency with more detailed sociometric data and a generalizable sample (Haynie 2002; Tolone & Tieman 1991). Among the four peer categories, isolates without peer trouble, representing the majority of isolates, were predicted to have the least delinquency and the least likelihood of gang initiation. Although isolates with peer trouble did have higher delinquency rates, this finding is conditional on peer conflict. These results further undermine the argument that weak bonds to peers increase criminal behavior.

Arguably the study's most significant findings relate to the combined effect of peer conflict and isolation on delinquent outcomes. This interaction proved a significant determinant of delinquent outcomes net of all included background characteristics. Although prior delinquency was the strongest predictor of both gang initiation and property crime, it did not render spurious the relationship between peer-troubled isolates and increased delinquent involvement. Furthermore, in models that assume gang initiation does not affect property crime, property crime was the strongest predictor of contemporaneous gang initiation. However, neither prior delinquency nor property crime rendered spurious the significant positive relationship between peer-troubled isolation and gang initiation. The increased likelihood of joining a delinquent group, along with an increase in delinquency, suggests that being

a peer-troubled isolate causes changes in behavior and peer involvement that are unexplained by control theory assertions.

Although this study is unable to identify the exact mechanisms for the above relationships, the findings are consistent with several criminological perspectives. Along with Patterson's (1982) social learning model, findings support both differential social control and general strain theory's emphasis on peer contacts in explaining adolescent delinquency. Additionally, the significant reduction in the main effect of peer-troubled isolation on property crime with the introduction of gang initiation leaves open the possibility that delinquent peers are the mechanism for the associations between peer status and delinquency. Discriminating between these causal mechanisms requires further analysis with more in-depth measures and additional waves of data.

There are several other limitations that should be considered when interpreting this study's results. As with any empirical analysis, data limitations qualify the study's findings. One limitation arises from the simple operationalization of complex concepts. For example, parenting processes, delinquent peer involvement, and aggression are multifaceted concepts measured with single variables. Thus, we cannot rule out the possibility that our estimates are downwardly biased due to measurement error. Multiple-indicator models of each concept would help reduce this bias. Unfortunately, data limitations prevent such an analysis. Future research, possibly emphasizing structural models capturing latent variables and measurement error, could shed light on this issue.

Another potential problem for this analysis lies in the measurement of isolation at a single moment in time. The Add Health study provides detailed network information from the in-school survey, but is limited in its longitudinal network analyses. A reliance on a cross-sectional network measure may not accurately capture respondents' peer statuses. Although studies have found marginal individuals tend to stay on the fringes of school networks (Coie & Dodge 1983; Ennett & Bauman 1996), future research should focus on longitudinal measures of adolescent peer status and their effects on delinquent outcomes.

A final limitation of this study, and an area for future research, involves the effects of school context on peer relationships and delinquency. Although the current analysis corrects for dependent observations within schools, it does not proceed to identify and estimate school-level effects on the outcomes of interest. It is likely that school environments play a substantial role in adolescent network formation and antisocial outcomes. Future research investigating these possibilities would further our understanding of school effects on friendship networks and delinquency.

In conclusion, this study's theoretical application of developmental and criminological approaches, along with the use of detailed network data, provides an illuminating look at marginal members of school networks. Results

demonstrate that isolation in itself is insufficient for predicting delinquency. However, isolation along with peer conflict does add to our understanding of criminal involvement. The images of the two types of isolates and their differing paths may prove useful for future research, as well as for interventions in the lives of troubled youth. In this time of increasing concern over school violence, understanding the patterns of isolation and peer conflict may be of particular importance and require our full attention.

Notes

1. In addition, subjective measures of peer interactions may be preferred for ethical reasons. Eliciting negative nominations from respondents can lead to increased gossip and further ridicule of unpopular students (Asher & Dodge 1986). Such concerns could stymie a project's approval, particularly when the study involves large samples within multiple schools.

2. As with all large surveys, Add Health contains missing data for respondents who did not answer specific questions. Although the demographic and Wave I independent variables had low nonresponse rates ($< 5\%$ missing), many respondents who completed the in-home survey were unavailable for the initial in-school questionnaire. The in-school questions therefore have a large (20-30%) number of missing values. To maximize statistical efficiency, missing data due to nonresponse were imputed using multiple imputation techniques in the statistical package S-Plus (Harrell 2001). This method has been shown to reduce potential bias while maintaining statistical efficiency (Little & Rubin 1987).

3. Under this operationalization, isolated students were allowed to nominate friends as long as these friendships were unreciprocated. Ideally, structural isolates would have no nominations from peers and no nominations to perceived friends. However, such a restriction reduces the variance in the isolated categories by approximately 50%, resulting in sub-samples that become dangerously small for reliable estimates. Models estimated with the more restrictive operationalization showed larger effects than those reported (suggesting that lacking perceived friends is indeed an important factor for isolates), but standard errors also grew substantially. The substantive effects in these models remained significant at $p < .06$, but in order to maintain stable estimates with increased statistical power, I chose to present the full models using the less restrictive definition of isolation.

4. The original variable was ordinal in nature, with possible responses of 0 = never, 1 = just a few times, 2 = about once a week, 3 = almost everyday, and 4 = everyday. These responses were dichotomized to simplify interpretation, but analyses using the ordinal scale showed no significant differences from the reported results. Results using the ordinal measure are available from the author upon request.

5. It should be noted that this method of determining peer trouble relies on the frequency of negative peer interactions rather than the severity of these encounters. "Trouble getting along with other students" covers a range of negative peer encounters of more or less severity, including minor difficulties with one student up to serious bullying from multiple peers. Absent a method of determining severity, I rely on high frequency of peer problems

(i.e., greater than once a week) to distinguish individuals with and without significant peer troubles.

6. A reviewer pointed out that ambiguity may exist regarding the timing of gang initiation. The question "Have you been initiated into a named gang?" was added to the delinquency section of the computer-aided questionnaire in wave 2. Although all of the preceding items refer to the 12 months prior to the survey, the gang initiation question lacks the 12 month stem. It is therefore possible that respondents interpreted the question as referring to gang initiation *at any time* and reported gang involvement prior to Wave 1. In such instances, the temporal ordering of the endogenous variables may be reversed.

7. Even though these concepts are measured prior to the dependent variables, they cannot be considered entirely exogenous in the model. It is possible that low peer status results in lower grades, parent attachment, etc., particularly if peer status remains stable over extended periods of time. The inclusion of these variables does, however, provide a conservative estimate of the effects of peer status on delinquency.

8. Stata's SURVEY estimators derive point estimates for complex survey data using a weighted maximum-likelihood estimator. This weighted "likelihood" is not the distribution function for the sample, and is therefore referred to as a pseudo-maximum-likelihood estimator. A consequence of this technique is that standard likelihood ratio tests are no longer appropriate. Rather, pseudo-MLE's rely on a Wald test, which approximates an F distribution with $(k, d - k + 1)$ degrees of freedom, where k is the number of model parameters and d is the number of primary sampling units (132 schools in this case) minus the number of strata (4 geographic regions in the Add Health). See Skinner (1989, section 3.4.4) for a further discussion of pseudo-MLE's.

9. King and Zeng (2000) note that, for logistic regressions of rare events (such as peer isolation), probabilities are often underestimated. This may lead to biased and inefficient estimates. To test for this possibility, all reported group comparisons were estimated as a series of logistic regressions and compared to results obtained from Tomz, King and Zeng's (1999) RELOGIT program, which introduces a correction for the estimation of rare events. Results from the two sets of models proved virtually identical, leading me to believe that low variance in the dependent variable was not problematic in this situation.

10. Because the cell sizes for the isolated categories are relatively small with decreased statistical power, I report significance levels at the $p < .10$ level.

11. The interaction term proved highly collinear with the main effect for peer trouble. To reduce this problem, the isolation and peer trouble variables were centered on their means prior to the creation of the interaction term. The mean centered variables were included in all subsequent models.

12. It should be noted, however, that even with the inclusion of measures for prior minor delinquency and fighting, the possibility remains that unmeasured characteristics could make the observed relationships spurious (see Paternoster et al. 2003). Future research with a dataset allowing for fixed-effect modeling may better address this issue.

13. This holds provided that (1) gang initiation and property crime are positively related and (2) the correlation between the error terms of the gang initiation and property crime equations are both positive. These appear relatively weak assumptions given results of previous research.

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APPENDIX A: Variable Definitions and Values

Dependent Variables		
Variables	Definition	Values/Calculation
Peer Status of friends/no friends	Categorical variable capturing interaction Invisible = 2; and friends with peer conflict (FC) (see Concepts and Measures).	Typical = 0; Peer-troubled Isolate = 1;
Gang Initiation (previous 12 months)	Dummy variable indicating respondent initiated into a known gang	F&C = 3
Property Crime (previous 12 months)	Mean value of six items: (1) paint graffiti (2) deliberately damage property (3) take from store without paying (4) steal something < \$50 (5) burglary (6) steal something > \$50 (Cronbach $\alpha = .77$)	Gang Initiate = 1; Not Initiated = 0 Never = 0; 1 or 2 times = 1; 3 or 4 times = 2; 5 or more times = 3
Exogenous and Control Variables		
Variables	Definition	Values/Calculation
Age	Respondent's age at time of in-school questionnaire	Continuous variable
Gender	Dummy variable indicating respondent is female	Female = 1; Male = 0
Black	Dummy variable indicating respondent is African American	Black = 1; White, Hispanic, Asian, Other = 0
Hispanic	Dummy variable indicating respondent is of Hispanic origin	Hispanic = 1; White, Black, Asian, Other = 0
Other	Dummy variable indicating respondent is of another race or ethnicity than white, African American, or Hispanic	Other = 1; White, Black, Hispanic = 0

APPENDIX A: Variable Definitions and Values (Cont'd)

Exogenous & Control Variables		Values/Calculation
Variable	Definition	
Homosexual attraction	Ever had same-gender romantic attraction	Yes = 1; No = 0
Physical disability	Has difficulty using his or her hands, arms, legs or feet because of a permanent physical condition	Yes = 1; No = 0
Intact parents	Two biological parents	Yes = 1; No = 0
Welfare	Parent(s) receive welfare subsidies	Yes = 1; No = 0
Family SES	Scale based on occupation and education level of parent(s)	Low SES = 1; High SES = 10
Measures of social disorganization	Weighted factor regressions measuring community poverty, ethnic heterogeneity and residential stability	Continuous variables
New to school	Dummy variable indicating respondent is in their first year at their current school	Yes = 1; No = 0
Prior fighting (previous 12 months)	Number of physical fights within last year	Never = 0; 1 or 2 times = 1; 3 to 5 times = 2; 6 or 7 times = 3; more than seven times = 4

APPENDIX A: Variable Definitions and Values (Cont'd)

Variables	Exogenous and Control Variables Definition	Values/Calculation
Prior delinquency (previous 12 months)	Mean value of seven items: (1) smoked cigarettes, (2) drank alcohol, (3) got drunk, (4) race on a bike, skateboard, roller blades, car or boat, (5) do something dangerous due to a dare, (6) lie to parents, (7) skipschool (Cronbach $\alpha = .76$)	Never = 0; once or twice = 2; once a month or less = 2; 2 or 3 days a month = 3; once or twice a week = 4; 3 to 5 days a week = 5; nearly everyday = 6
Parent attachment	Mean value of two items: (1) how much mother cares about you? (2) How much do you think your biological father cares about you? (Cronbach $\alpha = .67$)	Not at all = 1; very little = 2; somewhat = 3; quite a bit = 4; very much = 5
School commitment (grades)	Mean value of four items: (1) English grade (2) math grade do you think your biological (3) history grade (4) science grade	D or lower = 1; C = 2; B = 3; A = 4
Depression	Number of times depressed or blue within last year	Never = 0; rarely = 1; occasionally = 2; often = 3; everyday = 4
Number of out-of-school nominations	Number of friends R reports who are not students at his or her school	Range from 1-10

APPENDIX B: Oblique Rotated Factor Pattern of Add Health Contextual Data

	Factor Loadings		
	1	2	3
Concentrated disadvantage			
Below poverty line	.80	.16	-.18
On public assistance	.86	.23	-.08
Female-headed families	.79	-.03	-.25
Unemployed	.75	.10	-.11
Black	.64	-.18	.02
Ethnic heterogeneity			
Latino	.11	.96	-.29
Foreign-born	.02	.91	-.31
Residential stability			
Same house as in 1985	-.01	-.21	.74
Owner-occupied house	-.49	-.38	.70

Source: 1990 Census

A “Long Walk to Freedom” and Democracy: Human Rights, Globalization, and Social Injustice*

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Before I entered the polling station, an irreverent member of the press called out, “Mr. Mandela, who are you voting for?” I laughed. “You know,” I said, I have been agonizing over that choice all morning.” I marked an X in the box next to the letters ANC and then slipped my folded ballot paper into a simple wooden box; I had the first vote of my life. . . . The Images of South Africans going to the polls that day are burned in my memory. Great lines of patient people snaking through the dirt roads and streets of towns and cities; old women had waited half a century to cast their vote saying that they felt like human beings for the first time in their lives; white men and women saying they were proud to live in a free country at last. The mood of the nation during those days of voting was buoyant. The violence and bombings ceased, and it was as if we were a nation reborn. Even the logistical difficulties of the voting, misplaced ballots, pirate voting stations, and rumors of fraud in certain places could not dim the overwhelming victory of democracy and justice. (Mandela 1994, *Long Walk to Freedom*, p. 618).

Is this the promise of globalization? Will globalization bring democracy and the development and implementation of a human rights agenda and social justice to countries around the world? Will globalization enhance or lead to the deterioration of individual rights? Howard-Hassman (2004:1) presents globalization as “the second great transformation spreading capitalism over the world.” In this context, capitalism is viewed as an essential variable that may lead to a democratic state, which in turn may result in a society in which human rights are an essential part of the same. Howard-Hassman indicates that capitalism is a necessary (but not sufficient) condition for democracy, while the latter is “the best political system to protect human rights”² (also see Sen

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2000). It is also argued that although globalization may negatively impact a country in the short-run, its mid- to long-term effects will be positive and will result in “greater moves to democracy, economic distribution, the rule of law, and the promotion of social and civil rights” (Howard-Hassman 2004:1). But is this or will this be the reality for the vast majority of the world’s impoverished nations? The data that we present here suggests that this appears not to be the case, particularly in the context of economic stagnation and increasing poverty, inequality, and social injustice for many countries throughout the world.

Globalization and Capitalism: Is There Hope for the Future?

It is assumed, or at least expected, that today’s impoverished nations, through the process of globalization, will experience economic growth and, through the spread of capitalism, will become similar to the so called developed nations, such as the U.S. and Britain, among others. It is also anticipated that the process of globalization will lead to significant social, economic, and political changes resulting in what has been called the “Second Great Transformation.”³

As a direct consequence of globalization and the expansion of capitalism, national and international economies are increasingly being controlled, dominated, and shaped by global financial markets and transnational corporations (TNC) as well as by foreign governments, such as the U.S. and Britain, among others. These “centers of power” have been able to influence and shape laws, legislation, and public policy at the international level aimed at extending their political, economic, and military power. Their international influence is, to a large extent, shaping the national and global economic agenda and the development, or lack thereof, of countries throughout the world. This has occurred despite increasing skepticism and opposition from other world leaders and the international community, as manifested, most recently, by the widespread protests against the war on Iraq.

Nevertheless, the military and economic power of countries such as the U.S. is real and should not be ignored. For example, according to the U.S. Department of Defense (September 30, 1999) report titled “Active Duty Military Personnel Strengths by Regional Area and by Country,” the U.S. has military troops in 135 or in 70% of the world’s countries. In Iraq alone, the U.S. has deployed over 138,000 troops.⁴ This military presence, and its social, economic, and political implications and consequences, is unprecedented in world history. Have these interventions been in the name of democracy and to safeguard human rights? What will happen in Haiti, Venezuela, Iraq, and Afghanistan in the next year, or in the next five to ten years? Will we see an improvement in the social and economic well-being of these populations? Will these countries be able to generate governments that will result in democratic states in which human rights are protected and social justice embraced?

In this process of globalization and the spread of capitalism, TNC's are seeing as the “engine of development” that will, according to Lerner (1958, cited in Howard-Hassman 2004:7), “promote economic rights through investment and job creation, and civil and political rights through the creation of a stable and tolerant environment.” Does this position assume or infer that TNC's are indeed interested in the economic growth and development of the communities to which they relocate and that they will make considerable investments in local communities? The evidence seems to argue to the contrary. For example, manufacturing as well as other industries have moved from industrialized to poor countries in search of cheap labor, lower tariffs, fewer stringent environmental protection laws, and “flexible” government policies. They have relocated to countries and regions that will generally allow them to set their economic agendas without much governmental protection for their employees or even for the environment. As Parenti argues, “the corporation's social responsibility is nothing more than to itself, to its own system of production and accumulation” (1978:60).

For example, the tuna industry (including companies such as Neptune, Bumble Bee, Van Camp, and Star Kist) arrived in Puerto Rico in the 1960s fleeing from increasing labor costs, and increasing pressures from labor unions (Mulero 2000) and more stringent environmental protection laws in the U.S. They settled in the west coast of Puerto Rico searching for cheap labor, particularly women, to be employed in low-wage, low-skilled, and dead-end jobs with no real benefits or opportunities for professional growth and development. This industry was characterized by coercion, exploitation, and having their employees working under inhumane and intolerable conditions. In the meantime, the local and state governments paid little attention to the employees and to the widespread contamination of the harbor in Mayagüez (the west coast municipality where most, if not all, of the tuna industry was concentrated). Moreover, the local government became the primary entity in charge of defending and promoting the tuna industry.⁵

Given increasing production costs and increasing pressures to abide by minimum wage and Environmental Protection Agency laws, the tuna industry abandoned Puerto Rico and thousands of employees in the late 1990's and early 2000, and relocated to other regions, such as Central America, where wages would be significantly lower and government interference almost nonexistent. How can capitalism be a condition necessary for the establishment of a democracy and, henceforth, a mechanism that leads to the protection of human rights if the basic and operational principles of these “engines of development” run contrary to promoting the economic well-being of its employees or of a particular society?

It is estimated that, between 1980 and 1994, the world labor force increased by 630 million, apparently resulting in a growth rate much higher than that experienced by the population during this same time period (Giddens 2003

cited in Howard-Hassman 2004). While this may be the case, we must ask how many jobs were lost during this same time period. What types of jobs were generated during this 14-year period? Were the jobs created similar to those generated by the tuna industry in the west coast of Puerto Rico? Which regions or countries were the primary beneficiaries of this job growth? Who or what benefited from the creation of these jobs? What types of salaries and benefits were provided to these “new” employees? How did the creation of these jobs contribute to improving the overall quality of life for the people employed?

While the United Nations Development Programme (UNDP) *Human Development Report 2003* concurs that significant progress has occurred in poverty-stricken countries throughout the world within the past 30 years, they also acknowledge that these countries (despite significant increases in employment) are experiencing severe economic setbacks. The UNDP report points out that, for many countries, the 1990s “were a decade of despair;” the population in about 54 countries are poorer now than in 1990; for 21 countries, a higher proportion of the population is experiencing hunger; in about 14 countries, mortality for children under the age of five has increased; and about 12 countries have experienced a decline in primary school enrollments. Moreover, the report indicates that, for the past 20 years or more, income inequality has increased in about 33 of the 66 “developing” countries, which report such data.

Are Puerto Ricans “better off” today as a consequence of capitalism or is Puerto Rico’s current economic state an outcome of capitalism and the development strategies that were pursued following World War II under Operation Bootstrap?⁶ We can certainly argue that Puerto Rico is one of the countries that has experienced the greatest economic development in the Caribbean and that its income and economic growth are far superior to any country in this region, resulting in a relatively higher standard of living and economic prosperity for Puerto Ricans on the island. However, the answer to the aforementioned question is relative to our group of reference. Does it make sense to compare Puerto Rico to Cuba, the Dominican Republic, Haiti, or other countries in the region? The answer is absolutely not. Given the Treaty of Paris (1898), in which Puerto Rico was ceded by Spain to the U.S. and given the past 100 years of Puerto Rican history, U.S. citizenship, and the Island’s relationship to the US, then it must be compared to the U.S. mainland. However, if Puerto Rico were to become a state today, it would be (by far) the poorest state in the U.S., with unemployment rates in the double figures and poverty rates close to or at 50%, according to the U.S. Census 2000. Despite all its economic progress, Puerto Rico has become a country where the income gap between the rich and the poor has continued to increase and where the economic gap between Puerto Rico and the U.S. has also continued to grow (see Rivera-Batiz & Santiago 1996).

Development, among other things, should imply an increase in wealth for a country or for a particular society. However, under globalization and the expansion of capitalism, can we assume that everyone will equally benefit from this economic development? Will all subgroups of the population benefit from increasing income, reduction in poverty and inequality, and an increase in the standard of living and the quality of life? Of course not. The case of Latin America contradicts the expected pattern and consequences of globalization. Despite increasing development in Latin America, we have also seen increasing poverty and inequality in many of the countries in this region. The upper class is greatly benefiting from rapid development, but these benefits are not trickling down to the general population. Quite the contrary. Today, there are greater economic gaps between the rich and the poor. There is increasing wealth in the midst of ever expanding poverty. Many countries throughout the world have experienced significant development (as measured by GNP and per capita income) while social and economic inequality and poverty have continued to increase (United Nations 2003). Moreover, poverty is a phenomenon that primarily impacts racial/ethnic minorities, women, children, the elderly, and rural populations. Democracy and the development and implementation of human rights under these economic scenarios seems quite complicated, difficult to achieve, and even elusive.

Democracy, Social Action, and Human Rights

What is it that brings about the generation and implementation of human rights? Is it globalization? Can it only occur under capitalism? Does capitalism provide for the natural outgrowth of human rights? In order to generate significant social, political, and economic change to adequately develop and implement a human rights agenda, there must be social action. It is argued that capitalism leads to a democracy only when you have social action or social movements that generate the appropriate conditions for social change (Howard-Hassman 2004; UNDP 2003). There are in fact “historical windows of opportunities” in which a diverse set of factors converge to generate the appropriate conditions that lead to social action or social movements. For example, the rapid economic growth that emerged in the U.S. following World War II, which spread into the 1960s, combined with the emergence of protest groups and massive and widespread manifestations against the Vietnam War throughout the U.S., the rise of instrumental and charismatic leaders, such as Martin Luther King, among other factors, led to the civil rights movement. Similar circumstances emerged in South Africa, with the convergence of the African National Congress (ANC), the leadership of prominent figures such as Nelson Mandela, anti-apartheid movements and protests, and international pressures aimed at the elimination of apartheid, leading to the development

of a process heading towards democracy and democratic participation in South Africa.

Another important example of these “historical windows of opportunity” was the actions that led to the recent demilitarization of Vieques in Puerto Rico. On April 19, 1999, a military aircraft accidentally bombed an observation tower where a civilian employee (David Sanes) was working, resulting in his death. What emerged after Sanes’ death was the most significant, comprehensive, and organized social movement in Vieques, and perhaps in Puerto Rican history. What initially characterized these generally peaceful demonstrations was the support and participation of leaders from all political parties (i.e., independence, popular democratic or pro-commonwealth, and the pro-statehood parties); the convergence of religious groups from different denominations; the indignation and support of the overwhelming majority of the Puerto Rican population; and massive protests on the Island, New York City, Washington, D.C., and several countries throughout the world. The establishment of permanent campsites (by political and religious leaders and other activists) in the restricted military zones of Vieques provided a background of solidarity, compromise, organization, and defiance to a world power and its military. This was a social movement that united people with different values, norms, ideologies, and political and economic backgrounds and that eventually resulted in the U.S. Marines leaving the municipality of Vieques, after 50 years of military practices, which resulted in severe health and economic problems for the population of this island municipality.⁷

Most recently (March, 2004), the tragic train bombings in Madrid, Spain (described as the “worst act of terror” in Spain’s history, resulting in over 190 deaths and over 1,400 injured), combined with the initial intent of the government to conceal information on the origins or sources of the attack, the consequent outrage of the population, and widespread opposition to the war on Iraq, led to spontaneous but significant demonstrations and protests in this country. The final outcome was a massive participation in the political elections in Spain that resulted, contrary to expectations, in the victory of the Socialist Party candidate (José Luis Zapatero). Mr. Zapatero has openly opposed the war on Iraq and has indicated, on several occasions, that he will remove the Spanish troops from Iraq. The people of Spain united and generated social actions aimed at, publicly and peacefully, expressing their anger and outrage with the Popular Party. Ironically, perhaps, this was the planned outcome or the original intent of the terrorist attack on Spain, to lead to the defeat of the Popular Party candidate, which supported the war on Iraq.

These examples show that social action or social movements are instrumental in achieving important changes in a particular society whose members respond in an articulated and somewhat organized fashion to different forms of social injustice. The UNDP (2003:2) indicates that “recent

experiences have also shown that social movements can lead to more participatory decision-making.” However, if we agree that social action is needed in order to bring about the protection of human rights, then we might also be arguing that there may be a spurious relationship between capitalism and democracy, and this relationship is explained by a third variable, namely social action, which is aided by global communication networks and the extensive dissemination of information. It is true, however, that these types of social movements are more likely to occur under a democratic state than under an authoritarian and repressive one.

POPULATION PROCESSES, POVERTY, AND HUMAN RIGHTS

It seems unlikely that the proposed “second great transformation” will occur in the majority of today’s impoverished nations. There is no doubt that the historical, cultural, economic, demographic, and political conditions for 18th and nineteenth-century Britain are certainly not the same conditions for most of today’s poverty-stricken nations. For example, for industrialized nations, despite widespread poverty and inequality, population growth, generally, went hand in hand with economic development and economic prosperity. Today, many impoverished nations are experiencing very high levels of fertility and, consequently, rapid population growth rates combined with economic stagnation. The decline in mortality and increase in life expectancy in these poor countries was not, primarily, the result of economic development, but of the importation of public health initiatives, such as anti-malaria campaigns, penicillin, and Oral Rehydration Therapy (ORT). Further declines in fertility and mortality (particularly infant mortality) have not occurred in these countries given the absence of economic development, widespread inequality, and social and economic deprivation. Therefore, we have an increasing world population and rapid urbanization in the midst of rampant and increasing poverty.

It is estimated that over 1.2 billion people in the world (or about 20% of the world population) are living on the equivalent of less than one U.S. dollar a day (United Nations 2003). Moreover, poor households are increasing at a much higher rate than the well-to-do households. Poverty is increasing at an alarming rate in the urban areas of the world’s poorest countries. Close to 99% of the world’s natural increase (births-deaths) is occurring in these nations, and they house about 81% of the world’s population and represent 90% of the world’s births. In many poor countries, such as Nepal and Haiti, the vast majority of the population lives in rural areas and experience widespread poverty. For example, it is estimated that 42% of the population in Nepal lives in poverty, making it one of the poorest countries in the world outside of Africa, and there has been little or no change in poverty levels in Nepal during the past 20 years (Heleniak 2002).

It is quite correct that, as Howard-Hassman (2004) points out, the "Great Transformation I," occurred, in countries such as Britain, in the absence of human rights initiatives but were intrinsically based on military conquest, economic expansionism, exploitation, expulsion, slavery, the selling and purchasing of people, genocide, and ethnic cleansing, among others. However, despite the widespread dissemination of human rights throughout the world, many of these abhorrent practices are still a fact in many countries, although they now appear to be under the scrutiny of international communication networks and human rights' organizations. Further, notwithstanding increasing international pressures against actions that violate the most fundamental human rights, child labor, pornography, and prostitution; the trafficking of children (Ashford 2002); and sexual, physical, and substance abuse among children in countries around the world remain serious concerns and are part of everyday life for millions of children.

Another major problem in contemporary society is the trafficking and selling of humans. Orhant (2002), citing data from the Congressional Research Service and the U.S. State Department, indicates that trafficking of humans is "a large and growing practice," resulting in the trafficking of 700,000 to 2 million individuals (primarily children and women) each year across international borders. "Trafficking has turned into a big business . . . representing the third-largest source of profits of organized crime after drugs and guns, generating billions of dollars each year" (Orhant 2002:4). According to Orhant, individuals are being used for "forced prostitution, domestic service, unsafe agricultural labor, sweatshop labor, construction or restaurant work, and various forms of modern-day slavery" (2002:1). This is one of the most extreme forms of violation of human rights and social injustice that we are currently confronting on a global scale.

Population and Development

Since 1954, the United Nations has been celebrating, every 10 years or so, world population conferences.⁸ However, it was the 1994 Cairo International Conference on Population and Development (ICPD) that dramatically transformed our perspectives on population, development, and human rights' issues. This conference was called "the most comprehensive global meeting on population in this century" (Ashford 1995) with important participation from NGO's and a variety of women's groups. Participants in this conference, contrary to prior conferences, generally agreed that both family planning and economic development were important to address prevailing population issues. The (non-binding) "Action Plan" that emerged from this conference called for unprecedented changes aimed at enhancing women's roles and positions

internationally. In the agreed upon 20 year “Action Plan” to stabilize population growth, it was determined that there was a need to promote gender equity in access to health, education, employment, and income. It was “agreed” that there was a need to reduce discrimination against women; to allow women the liberty or rights to control their fertility and to remove the legal, cultural, and/or religious obstacles that would interfere with these fundamental rights (Ashford 1995). Despite this “Action Plan,” not much progress has occurred since then and, to a large extent, the population problems that paved the way for the 1994 Cairo conference remain practically unchanged.

Just before the Cairo conference, in 1993, the Infant Mortality Rate (IMR⁹) for “less developed” countries was 69, today it is 61 (65 excluding China), compared to 7 for industrialized countries. In 1993, life expectancy for poverty-stricken nations was 63 and today it is 65 (63 excluding China) compared to 76 for industrialized nations. This is not to say that poor nations have not experienced significant declines in the IMR and increases in life expectancy. In 1950, the IMR for the world was 156 and in 2003 it was 55; most declines in the IMR during this time period occurred in poor countries. However, much of that decline occurred from the 1950s to the 1980s with very little change or improvements during the 1990s. What is even more troublesome is that the IMR for countries in Africa, particularly for Sub-Saharan Africa, Middle Eastern countries, and some countries in Latin America and the Caribbean remain extremely high. For example, the IMR is 61 in Bolivia, 80 in Haiti, 103 in Iraq, 126 in Mali, 129 in East Timor, 134 in West Sahara, 141 in Liberia, 145 in Angola, 154 in Afghanistan, 155 in Sierra Leone, and 201 in Mozambique, to name but a few. Life expectancy remains extremely low in countries such as Haiti (51), W. Sahara (50), Burkina Faso (45), Sierra Leone (43), Zambia and Zimbabwe (41), and Botswana and Lesotho (37) (Population Reference Bureau, 2003a).

Problems with mortality and life expectancy are exacerbated by the HIV/AIDS epidemic that has impacted a significant number of African countries. For example, 39% of the population, aged 15-49, in Botswana was reported to have contracted HIV/AIDS; 31% in Lesotho; 33% in Swaziland; 22% in Namibia, and 20% in South Africa (all countries located in Southern Africa) (PRB 2003a). It is noteworthy that 68% of HIV/AIDS cases worldwide are reported to be in Sub-Saharan Africa. This has primarily become an epidemic among women and the youth in African countries, severely limiting and reversing gains in life expectancy. Moreover, it is expected that life expectancy will continue to decline in some African countries as a direct consequence of HIV/AIDS (see Carr 2004; PRB 2004).

We should also note that approximately 600,000 women die every year as a result of pregnancy, childbirth, and abortion throughout the world. About 95% of the maternal deaths take place in poor countries (PRB 1998). Diseases

associated with diarrhea cause 6,000 deaths, each day, primarily among children under the age of 5. In the urban areas of low-income countries, one child in six dies before age 5. Each day, about 25,000 people, worldwide, die of hunger. Dynes (2004:2) indicates that, according to the World Food Program, “nearly 40 million people are struggling against starvation.” Moreover, in 2001, almost 2 million people died from infectious diarrhea and over 1 million people die each year from malaria.

It is important to note that a nontrivial number of the aforementioned problems are the direct result of the population’s lack of access to water and basic sanitation. It is estimated that about 16% of the world population (over 1 billion people) lack access to safe drinking water while about 38% (or 2.4 billion people) do not have access to basic/adequate sanitation. Carr (2004) notes that approximately 1.7 million people die, on an annual basis, as a consequence of “unsafe water, sanitation, and hygiene” (also see De Souza et. al. 2003). With increasing world population, these numbers will also continue to grow. As we might expect, lack of access to water resources is not uniformly or equitably distributed worldwide. Again, it is the poor, children, women, and the elderly that are most likely to lack access to adequate water and sanitation. Access to piped water is lowest in Africa (24%) while only 49% and 66% of the population in Asia and Latin America/Caribbean, respectively, have access to piped water¹⁰ (United Nations 2003). The most “water scarce” regions in the world include the Middle East and North Africa (Roudi-Fahimi et. al. 2002). For example, in Ethiopia, less than a third of the total population has access to clean water. The Ethiopian droughts have caused an insurmountable amount of deaths and suffering among this population.

Impoverished countries throughout the world are experiencing severe health problems, high levels of infant mortality, and relatively low levels of life expectancy, as a consequence of diseases and illness that are preventable and that industrialized nations have done away with for decades. As Carr (2004:1) points out, the “human, economic, and societal costs of ill health are immense. Millions of people die prematurely from diseases that are preventable or curable. At relatively little expense, many of these people could lead longer, healthier, and more productive lives.” At the same time, “bad health ensures that a country will not be able to break the shackles of poverty” (Jim Tulloch, country representative for the World Health Organization in Geneva, cited in Carr 2004:2).

Disasters, Poverty, and Human Rights

The problems of impoverished nations throughout the world have been exacerbated by environmental degradation and natural hazards. Easterly (2001, cited in Dynes 2004:2) indicates that “between 1990 and 1998 poor countries

accounted for 94% of the World's 568 major disasters and 97 percent of disaster related deaths." Asia is the world's most disaster prone region (Osti 2004) while, at the same time, its population has continued to experience increasing poverty, thus magnifying the effects of disasters for the regions' most vulnerable groups. Poor population groups suffer disproportionately the consequences of natural hazards and disasters (Rodríguez 2002; Blaikie et. al. 1995; Curson 1989) as well as that of famines, epidemics, and wars (Curson 1989). Let us take a closer look at several countries whose economies and the population's quality of life have deteriorated considerably as a consequence of natural hazards and disasters.

Bangladesh is one of the most densely populated and one of the poorest countries in the world and it "is near the bottom of the ladder in most measures of human development" (Hutton & Haque 2004:42). According to Hutton and Haque (2004), in normal or regular flood years, close to 18% of the land in Bangladesh is subject to floods. In more extreme years, close to 40% of the land can be impacted by floods. Some have referred to Bangladesh as the world's "disaster capital," experiencing cyclones and floods which result in tens of thousands of deaths. The effects of natural hazards in Bangladesh are exacerbated or are a direct consequence of extreme poverty and social inequality.

In October 1998, Honduras (and other countries in Central America) suffered the ravages of Hurricane Mitch; the entire country was severely impacted by this devastating hurricane. The number of hurricane victims in this country still remains unclear; some have suggested a death toll of 5,600, over 12,200 injured, and over 8,000 persons missing.¹¹ The replacement costs in Honduras, as a consequence of the damages generated by Hurricane Mitch, were estimated at about \$5 billion. Some economists have suggested that Mitch resulted in an economic set back of about 50 years for Honduras, one of the poorest countries in the Western Hemisphere.

Vatsa and Joseph (2003) describe the 1993 Latur Earthquake and its demographic and socioeconomic impact in the state of Maharashtra, India as follows: "On September 30, 1993, an earthquake of magnitude 6.3 on the Richter scale struck the southeastern region of the state of Maharashtra . . . around 8,000 people died in the earthquake, and more than 16,000 were injured. In the two districts, Latur and Osmanabad, which were hardest hit by the earthquake, 70 villages were completely destroyed, and more than 1,500 villages reported extensive damages to houses and public property" (2003:207). In May 2003, an earthquake with a magnitude of 5.8 in the Richter scale left over 2,200 hundred dead and about 9,000 injured in Algeria. Most recently (December, 2003), an earthquake, with a magnitude of 6.6, resulted in over 25,000 deaths and more than 30,000 injured in Bam, Iraq. It is noteworthy that an earthquake with a slightly higher magnitude (6.7) in 1994, known as the

Northridge Earthquake, left about 60 dead in a high population density area in northern Los Angeles, California.

What is the difference between these regions (Bangladesh, Iraq, Honduras, and Algeria), that result in such devastation and mass casualty, and countries such as the United States, where the number of deaths from natural hazards has continued to decline? One answer to this question is extreme poverty, lack of adequate disaster preparedness and mitigation initiatives, and an overall lack of adequate and responsible governance. Population vulnerability to natural hazards is exacerbated by poverty; the poorest population groups are more severely impacted by disasters and are the ones that have the most difficulty in recuperating from such events. As Kofi Annan indicates, “most disaster victims live in developing countries, where poverty and population pressures force growing numbers of people to live in harm’s way” (*The International Herald Tribune*, 10 September 1999).

Factors such as population growth, urbanization, deforestation and environmental degradation, and lack of mitigation initiatives, among others, have also increased our vulnerability to natural hazards (Pielke, et. al., 2003; Rodríguez, 2002; Blaikie, et. al., 1995). Moreover, the existing social, economic, and political systems contribute to the populations’ vulnerability to hazards and disasters (Blaikie, et. al., 1995). As argued by Blaikie and colleagues (1995) and Cannon (1994), among others, the root causes of vulnerability are the population’s limited access to power, structure, and resources. In order to protect lives and property in these impoverished and disaster-prone regions, we need to generate policies and practices that provide for the security and safety of individuals and communities. We must also work with governments and communities in order to develop “disaster resistant” or resilient communities that are able to prepare for, respond to, and recover from hazard events. These are important issues that need to be addressed as an integral part of a human rights’ agenda.

Globalization, Communication Networks, and the Spread of Human Rights

Howard-Hassman (2004) assumes, rightfully so, that communication networks speed up the process of globalization and the spread of human rights throughout the world. She indicates that “with the internet and email, it is easy for citizens of all nations of the world to acquire information and to communicate with each other instantaneously” (27). Technological innovations, including radars and satellites, geographic information systems (GIS), global positioning systems (GPS), the Internet, Internet wireless connections, e-mail, the development of cellular phones, text messaging, PDAs

and other handheld electronic devices, and fax machines, among others, have transformed the way we communicate (Rodríguez et. al. 2004). Consequently, what used to be domestic news or information, limited to a particular geographic location, has suddenly become an international event. Now wars and conflicts, famines, crimes, protests, human right abuses, as well as other types of events, have become international news with an international audience, which take place in many of our living rooms on a daily basis. The expansion of communication networks throughout the world have served to make an increasingly group of people aware of their poverty and misery, while, on the other hand, it has desensitize other groups to the human right abuses and social injustices that are taking place in today's global society.

The role of global communication networks in the spread of globalization and the dissemination of information on human rights and human right abuses could be extremely important but needs to be carefully documented. Moreover, we cannot assume that all population groups have access to these sources of information or to the information that is being disseminated through the same. Extreme poverty in many of the world's countries and regions (as described above) limits population access to these types of technology and information. While there is not doubt that, increasingly, citizens throughout the world have access to the internet and other sources of information, it is also the case that the vast majority of people in the world do not have access to the internet, to television, to radio, or to newspapers, among others. Therefore, access to information for the majority of the world population is still extremely limited thus creating an international “digital divide” which exacerbates the existing inequities around the world. Carr (2004) points out that “the poor-rich divide in access to information, technology, and high quality basic and specialized health care threatens to leave the global poor even further behind” (28).

Universal Declaration of Human Rights: Who will defend our rights?

In 1948, the General Assembly of the United Nations established the *Universal Declaration of Human Rights*, which proclaimed that this should be “a common standard for achievement for all peoples and all nations, to the end that every individual and every organ of society, keeping this declaration constantly in mind, shall strive by teaching and education to promote respect for these rights and freedoms and by progressive measures, national and international, to secure their universal and effective recognition and observance” (United Nations 1948:1).

Through this Declaration, the United Nations proclaimed that all individuals have a right to life, liberty, and security of person; that we are all entitled to full equality; that everyone has a right to own property; to freedom

of thought; right to equal pay for equal work; a right to a standard of living that is adequate for the health and well-being of individuals and their families; and a right to education, among others. In 1993, 171 countries reaffirmed the importance of and their commitment to human rights generally and to the *Universal Declaration of Human Rights* specifically.

Given that over 55 years have elapsed since the United Nations adopted this Declaration, we need to ask if we are better off today as a consequence of this Declaration. Are more countries committed to the full implementation of the same? The answer is “probably so” to both questions. However, the data and issues discussed in this paper also show that we are merely at the beginning of the implementation of this human rights declaration, that many countries are not truly committed to the enforcement of these basic human right principles, that even industrialized countries are no where near to achieving the implementation of the aforementioned rights, and that human rights’ violations and abuses are still the order of the day in contemporary societies.

In an attempt to address the aforementioned inequities, just recently (2000), 191 countries pledged to meet the *United Nations Millennium Development Goals* by the year 2015. These are ambitious but needed goals aimed at eradicating extreme poverty and hunger; achieving universal primary education; promoting gender equality and empowerment; reducing child mortality; improving maternal health; combating HIV/AIDS, malaria, and other infectious diseases; ensuring environmental sustainability; and establishing global partnerships for development (see United Nations 2000 and 2003). This agenda is a complex one which requires the commitment of rich and poor nations. In order to accomplish these goals, however, governments must direct their resources towards increasing education, improving health conditions, and increasing the levels of income of the impoverished populations throughout the world. Moreover, industrialized countries must be willing to invest resources and provide financial, technological, and scientific support and know-how to poverty-stricken nations, if we are to succeed in the implementation of this agenda. Countries must establish international or global partnerships, not in order to influence or determine economic or political agendas but to promote human rights and social justice. The implementation of the aforementioned agenda (the *UN Millennium Development Goals*) requires the immediate attention of countries throughout the world, at a time when socio-economic inequalities and disparities in health have continued to increase (Carr 2004).

Concluding Remarks

There are many questions for which do not have concrete answers when it comes to the implementation of human rights and social justice. For example, who should watch for the protection and implementation of human rights:

international bureaucracies, such as the United Nations; pro-human rights organizations; government agencies; or local communities? What are or should be the consequences for countries that continue to disenfranchise and exploit their populations and violate their fundamental rights? Will governments favor and support organizations, such as the United Nations, as long as they do not interfere with the military and economic goals of powerful nations or as long as the actions taken are in the "best interest" of a particular country? Will countries continue to "defend" and "speak out" against human rights' abuses throughout the world but continue to generate policies and laws such as those governed by the Patriot Act, which violate human rights for the sake of "national security?" Who are and will continue to be the victims of human rights' violations and social injustice?

In response to the last question and based on the data and information presented throughout this article, we must coincide with Parenti (1978) when he indicates that the poor possess "little material wealth when wealth has been the greatest determinant of life chances, the lower classes have experienced the harshest exploitation as both workers and consumers; the most disease and the earliest deaths; the least opportunity for comfort, learning, autonomy, self-governance, and self-respect and the sternest mistreatment at the hands of the law" (1978:65). Others might choose to agree with Marx and Engels, when they point out that "the modern bourgeois society . . . has but established new classes, new conditions of oppression, new forms of struggle in place of the old ones . . . society as a whole is more and more splitting up into two great hostile camps, into two great classes directly facing each other" (1848:9).

In order to generate significant social and economic change and to focus on the growth and implementation of human rights, countries need to experience economic development, increase in education, particularly for women; and become part of the international communication network. We must also focus on the alleviation of poverty and social inequality, particularly in the "less developed" regions of the world. Countries must develop economic strategies aimed at increasing the basic incomes of individuals and families in the lowest rungs of the socioeconomic ladder. However, wealth or income is only one of the components of poverty. As the 1998 Nobel Laureate in Economics, Amartya Sen, has stated, poverty is a "serious deprivation of certain basic capabilities," (1998:194) such as health care, schooling, and land tenure, among others. Therefore, an increase in a countries' GNP, will not necessarily result in a reduction in the deprivation of basic necessities. Quite the contrary, as we have already shown, we can continue to experience increasing poverty and inequality in the midst of increasing GNP. Sen (2000) argues that development is or should be a process of expanding freedom for a country's population. He goes on to indicate that "development requires the removal of major sources of unfreedom: poverty as well as tyranny, poor economic

opportunities as well as systematic social deprivation, neglect of public facilities as well as intolerance or overactivity of repressive states” (2000:3).

The alleviation of social inequality, the implementation of a human rights’ agenda, and the development of a socio-political process aimed at enhancing social justice are not simple tasks to undertake nor will they yield immediate results. Nevertheless, “unless there is radical improvement, too many countries will miss the [United Nations’ Millennium Development Goals] targets — with disastrous consequences for the poorest and most vulnerable of their citizens” (UNDP, 2003:13). As the UNDP states, in its *Human Development Report 2003*, in order to achieve significant and systemic changes in health, education, and in the alleviation of poverty, we will need the work and commitment of government officials, international collaboration, and “popular mobilization to sustain the political will.”

Whether we agree or disagree with Parenti or Marx and Engels, we do need to ask whether globalization will mitigate or exacerbate the social, economic, health, and other human rights’ problems and concerns presented here. In my view, the data seems to be pointing towards the latter. Is globalization and capitalism the ultimate or long-term solution to these problems? The evidence seems to be somewhat arbitrary and contradictory in this area. Whether capitalism is a necessary condition for democracy and, henceforth, for the implementation of a human rights’ agenda, is also questionable; the evidence, at best, is mixed and inconclusive (Howard-Hassman 2004).

Our intention is not to argue that the social, economic, and health problems discussed in this article have emerged as a direct consequence of globalization. Indeed, many of these problems have co-existed with human beings since the beginning of time. However, we do argue that globalization is not the panacea that will contribute to the solution or amelioration of the aforementioned problems. What does seem to be clear, as we have documented here, is that the outcome of globalization has been the exacerbation of poverty and inequality.¹² If globalization is the long-term answer or solution to the world’s problems (as the proponents of globalization argue), then it seems that we will be taking a long walk to freedom, democracy, and the fulfillment of human rights and social justice. It is also important to note that as this process of globalization continues, many of our human rights will continue to be negatively impacted by diverse economic, political, and military forces.

Despite the aforementioned circumstances, it is necessary to understand that globalization is a fact in today’s societies and appears to be an irreversible process. Therefore, we must analyze, explore, and generate concrete initiatives that will address many of the problems and issues presented throughout this paper. It is quite evident, however, that we do not need additional laws, legislation or public policies aimed at alleviating poverty, providing access to adequate health care and educational benefits, or aimed at enhancing women’s rights vis-à-vis their male counterparts. What we actually need is the fulfillment

or the implementation of the United Nation's Declaration of Human Rights or their Millennium Development Goals or the 1995 ICPD Action Plan. We need governments to commit to these goals and to invest economic resources in initiatives aimed at providing adequate health care and basic education to their citizens.

Social action will be instrumental in mobilizing local and international governments and communities in order to pursue and implement the aforementioned initiatives. Social mobilization combined with pro-human rights organizations and the dissemination of information, through global communication networks, have and will continue to contribute to the human rights' movement, allowing populations throughout the world to learn about and to expose human rights' abuses in their communities. Finally, we as scholars, intellectuals, and researchers can play a very important role in this process. We have an obligation to educate, to inform, and to train our students to think about the impact and outcomes of globalization, development, capitalism, and human rights. Even today, we can agree with C. Wright Mills (1958):

Every time intellectuals have the chance to speak yet do not speak, they join the forces that train people not to be able to think and imagine and feel in morally and politically adequate ways. When they do not demand that the secrecy that makes elite decisions absolute and unchangeable be removed, they too are part of the passive conspiracy to kill off public scrutiny. When they do not speak, when they do not demand, when they do not think and feel and act as intellectuals — and so as public individuals — they too contribute to the moral paralysis, the intellectual rigidity, that now grip both leaders and led around the world. (151)

These words are all the more relevant today in a post 9-11 environment, in the era of the Patriot Act, terrorism, and homeland security.

Notes

1. This article was initially presented as part of the “Panel on Human Rights and Globalization,” Southern Sociological Society, 2004 Annual Meeting, April 14-17, 2004, Atlanta, Georgia. It originated, in part, as a response to Rhoda E. Howard-Hassman's paper titled “The Great Transformation II: Human Rights Leapfrogging in the Era of Globalization,” also presented in this panel session. I would like to thank Alfonso R. Latoni and other esteemed colleagues for their insightful comments and recommendations.

2. It is noteworthy that there is not a causal relationship between democracy and the implementation of a human rights' agenda, broadly construed. Although, human rights are more likely to flourish in a democratic society, this is not necessarily the case, particularly when we look at issues such as the reduction of poverty, universal access to adequate health care and education, and equal rights for men and women, among other

factors. For example, the U.S. population has achieved political rights, that is, freedom of speech and the right to democratically elect their government representatives through popular elections. However, the U.S. population is not guaranteed economic rights; they do not have a right to employment or a right to universal health care, among others. Over 43 million Americans do not have access to health care in the U.S.; extreme poverty exists throughout the mainland, particularly in central cities (where minorities are concentrated) and in rural areas. It is estimated that in 2002, 17% of all children in the US were living in poverty, with rates as high as 29% in the District of Columbia and 26% in Louisiana, Mississippi, and New Mexico (Annie E. Casey Foundation 2003). These rates are much higher in rural areas of the U.S. and among racial and ethnic minorities and female headed households, which confront severe health problems and lack of adequate health care. Further, African Americans have a lower probability of “reaching mature ages” when compared to individuals in many impoverished nations throughout the world (Sen 2000). On the other hand, although experiencing widespread poverty and lack of a democratic state, Cuba has made significant gains in the educational process and in the health field. The Cuban population has also experienced important demographic changes resulting in fertility and infant mortality rates, as well as life expectancy at birth, that compare very favorably to the most developed and the richest countries in the world, despite over 40 years of a U.S.-imposed economic embargo on this country (see PRB 2003a, 2003b)!

3. For a detailed discussion on the origins and consequences of the “great transformations,” see Polanyi 1944; Howard-Hassman 2004).
4. As a consequence of the escalating violence in many regions throughout Iraq combined with the increasing threats of several countries (e.g., Spain, Eritrea, the Dominican Republic, and Honduras) to withdraw their military troops from Iraq, the U.S. military presence in this country will more than likely continue to increase.
5. For a more detailed analysis of the tuna industry in the west coast of Puerto Rico and the social, economic, and political implications see Mulero, 2000 and Valdés-Pizzini, 1996.
6. Operation Bootstrap or “Operación Manos a la Obra” was a 25-year economic development strategy initiated by the Puerto Rican government, in 1947, in order to attract manufacturing industries from the US mainland to Puerto Rico in order to industrialize the Island, based on the provision of cheap labor, tax exemptions, and low-cost infrastructure, among other incentives (Scarano, 1993). For an overview of Puerto Rico’s economic growth and development, see Carr 1984; Irizarry-Mora, 2001; Perez de Jesus 1987; Rivera-Batiz & Santiago 1996; Scarano, 1993; Quintero-Rivera, 1986; Rivera-Medina & Ramírez 1985; Ramirez de Arellano & Seipp, 1983; Weiskoff 1976, among others.
7. Although this social movement was instrumental in defending and protecting the human rights of this population, it also resulted in political and economic actions taken by the U.S. government that will have far-reaching consequences for the Puerto Rican population.
8. For a detailed discussion on the world population conferences and their goals/objectives and outcomes, see PRB 2004 and Ashford 1995).

9. The IMR is expressed as the annual number of deaths of infants, under age 1, per 1,000 live births. For comparative purposes, in modern society, an IMR of 10 or more is considered to be "high."
10. It is estimated that developing and transnational countries spend about \$80 billion on the water sector, on an annual basis (Preliminary 3rd World Water Forum Statement, March 21 2002). However, these countries need to spend over twice that amount or about \$180 billion, on a yearly basis, to achieve water security and to provide adequate sanitation services for the world's poor population (Macan-Markar 2003).
11. Pielke et. al. (2003) have estimated the total loss of life in Nicaragua and Honduras, as a consequence of Hurricane Mitch, in the 10,000 mark with over \$8.5 billion in combined damages. For comparative purposes, we should note that Hurricane Andrew in 1992 (one of the costliest hurricanes in U.S. history with an estimated total loss of about \$25 billion) left a death toll of 15 in Florida (Dade County), 8 in Louisiana, and 3 in the Bahamas for a total of 26 deaths.
12. Howard-Hassman (2004) indicates that, in the short-term, globalization has resulted in the violation of human rights, leading to social disruption and much exploitation although she argues that the long-term effects of globalization will be positive and will promote the development of a human rights' agenda.

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Response to Rodríguez: A “Long Walk to Freedom” and Democracy?*

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Havidán Rodríguez’s article, “A ‘Long Walk to Freedom’ and Democracy: Human Rights, Globalization, and Social Injustice,” (2004) offers a powerful critique of globalization, capitalism, and democracy. His piece provides evidence of how individuals remain in inhumane conditions, despite doctrine designed to protect all. He also poses challenging questions and begins answering them with theoretical claims and empirical evidence. Yet, in his examination of human rights, Rodríguez does not consider collective rights, such as rights to culture, language, and the environment. Instead, he emphasizes individual rights, primarily first- and second-generation human rights. He also uses a convenient definition of *globalization* and assumes that democracy is a desirable choice of government always compatible with human rights doctrine. It is important to establish more clearly what globalization is — both theoretically and empirically — before we can fully consider its impact on human rights doctrine, protections, and enforcement.

Globalization

Globalization, in theory, is a two-way process: the universalization of particularism and the particularization of universalism (Robertson 1997). Local communities interact with the global community, and the global community interacts with the local communities. This can occur in economic, cultural, and political spheres. One result of a global economy is an expanded area of economic competition, the global market (Chase-Dunn 1999). With the resulting standardization — universalizing the particular — goods can be sold around the world with little, if any, customization, such as the Sony corporation’s Walkman (du Gay et al. 2000 [1997]). At the same time, localities can customize standard goods — particularizing the universal — exemplified

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by the use of large media conglomerates to transmit traditional local ideologies (Tehranian & Tehranian 2000 [1997]). Communications allow people to share the experiences of globetrotting friends and witness events around the world, creating space for a global culture (Appadurai 1998). But globalization threatens the power of the sovereign states via transnational actors such as businesses and advocacy organizations (Beck 2000). And while global political action and civil societies are emerging, a global governing body has not yet been established.

Globalization, empirically, is rife with contradictions. It promotes and inhibits democracy. It is homogenizing and diversifying, standardizing and localizing (Kellner 2002). It might be the only avenue to world prosperity and the greatest threat to human development (Cheru 2000; Howard-Hassman 2004; Rodríguez 2004). Its standardization and homogenization processes can standardize oppressive policies just as they can standardize liberating ones.

The local and global exchanges in a globalizing world produce divergent responses: localization and globalization. Globalization is not the only global social force. There are other one-way global processes and other processes of global exchange and interchange. A single powerful party can act to spread its own culture and its own economic or political practices and norms. One example of this is Americanization, the spread of American cultural, economic, and political systems around the globe. Another example, global capitalism, is bringing change to the international economic system. In global capitalism, the economy is internationalized and corporate bodies act across borders to maximize profit and financial incentives. But Americanization and global capitalism should not be confused with globalization. While these many processes might be concurrent, they are separate phenomena, both theoretically and empirically.

Collective Human Rights

Human rights encompass the right to “what is minimally necessary to live one’s life as a human being” (Howard 1995:14). Human rights protect human agency and by extension protect human agents (Ignatieff 2001). Ideas of what is minimally necessary to live, what protects agency, and what protects agents are socially constructed. Thus, the empirical expression of human rights is not static, but shifts as the socially defined meaning changes. Basic human rights generally consist of the right to subsistence; protections from cruel and unusual punishments; and the freedom *from* oppression, interference, or abuse. In a human rights context, all individuals have equal moral worth. The empirical reality may or may not reflect this value statement.

Rodríguez eloquently demands attention to human rights, particularly the rights protecting the welfare of individuals. Beyond first- and second-

generation human rights,¹ positive and negative rights,² or internal restrictions and external protections,³ lie third-generation rights. With third-generation human rights, collective human rights are recognized. Collective rights can be misconstrued as not pertaining to individuals, or even hindering individual freedoms. Yet, the denial of collective rights inhibits both collective and individual freedoms. Collective rights, such as the right to a cultural identity, can extend individual freedoms and liberty. There are many examples of collective rights, including the right to nationality (United Nations Universal Declaration of Human Rights, Article 15 1948).

The United Nations and other international bodies were dominated by Western states when human rights were first conceived. Today, Western states are outnumbered, but their influence remains strong. The liberal state upheld by the West prioritizes the individual. Compromises and change are slow in coming, as the West remains the main enforcer of human rights, but non-Western countries are beginning to assert themselves in championing collective rights that transform regional, state, and interstate politics. New declarations and doctrine are being authored to protect communal rights and needs (e.g., Universal Draft Declaration on Cultural Diversity 2001), ethnic groups are joining the European Union, and territorial boundaries are being created within states to protect cultures and peoples (e.g., Nunavut Territories in Canada). Oppressed people are seeking broader enforcement of existing human rights doctrine. The international body has a moral obligation to respond to oppressed groups who are not protected by federal bodies, regardless of whether the protections they seek lie outside the liberal state. Human interdependencies are growing exponentially with globalization, and now every member of the global society has a stake in another member's human rights. In an interdependent, transnational society, the obligation for upholding human rights is in each global citizen's hands. Protecting human rights starts with doctrine and culminates in enforcement and punishment of violations.

Strange Companions: Democracy and Human Rights

Presumably, liberal democracies would be the least hostile to human rights doctrine. Human rights doctrine strives to protect liberty and human ability to live a good life, priorities for the liberal democratic state. Yet, within the democratic state and the democratic global governance there are three primary sources of conflict with human rights: a tradition of freedom already exists within liberal theory; collective rights are incompatible with the liberal value and focus on the individual; and human rights can undermine state sovereignty.

Democratic rule is widely regarded as a fair and just means of governing. A liberal democracy is defined by "the extent to which a political system allows political liberties and democratic rule" (Bollen 1993:1208). This definition of

democratic rule emphasizes the degree to which the national government is accountable to the people and the right of citizens to participate in government. It describes the political procedures of a system that allows for freedoms. The liberal democratic state enforces social contracts (Hobbes 1962; Rousseau 1968), regulates relations (Hobbes 1962; Poggi 1978), protects liberty (Madison 1961; Mill 1989), and has a monopoly on the legitimate use of violence (Levi 1988; Weber 1946). The enforcement of contracts, regulations, protection of freedoms, and sole claim on the legitimate use of violence allow the state to protect its citizens and guard their freedoms. Via these functions, the state is able to create the space for each citizen to live a "good" life.

In a liberal democracy, the freedom of citizens is protected. The state body provides this protection via its ability to regulate and enforce contracts. The state — as the only body with the ability to legitimately use violence — has strong enforcement capabilities to ensure the protection of liberty. The liberal thought tradition is rooted in the right to live a "good" life: the ability to live in accordance with one's beliefs about what is valuable in life and the ability to examine beliefs with whatever tools that the culture provides (Kymlicka 1995). Liberal society allows for questioning and the reshaping of what is conceived of as good. In this way, the liberal thought tradition and liberal democracies protect human agency and human rights.

The liberal thought tradition tends to provide protections for the individual, while it rejects collective rights, which can be misconstrued as not pertaining to individuals or as hindering individual freedoms. In fact, individuals exercise the rights gained by collectives, and thus collective rights can be individual rights as well (Kymlicka 1995). While collective rights might be used to limit the rights and freedoms of individuals in the name of protecting the collective (e.g., the argument that female genital mutilation must be allowed to continue in order to protect the culture which values this practice), collective rights can also expand liberty for individuals. They are not inherently incompatible with liberal democracy, and, therefore, third-generation human rights doctrine does not inherently conflict with the liberal democratic state.

States lose sovereignty when the international community must act to protect the agency and well-being of individuals. An international human rights doctrine will force the state to surrender some of its sovereignty to an international governing body. International human rights doctrine can pinch state sovereignty. A liberal democratic state is an independent actor in a global community of states (Skocpol 1988). The state acts to protect its interests and goals in the local and international realms. It is difficult to maintain an international standard of human rights while not interfering with state sovereignty (An-Na'im 2001; Ignatieff 2000). Yet because states are the bodies that enforce human rights locally, it is important to have the support and compliance of the state (An-Na'im 2001). The sovereignty of the state must

be respected by international governing organizations if human rights doctrine is to be successfully instituted.

It is easy to see traces of absolutism in the definition of the democratic state. There is no room for any other governing power to establish its ability to rule without this being an usurpation of state sovereignty, even within liberal democracies. The state is the sole source of law, regulation, and enforcement within its boundaries.⁴ While the absolute power might implicitly be in the hands of the people who elect the leadership of the state, the liberal democracy still appears to be a form of absolutism. Human rights doctrine demands that the liberal democratic state surrender some of its sovereignty, its absolute power, to another governing body. In this regard, the state would no longer hold a monopoly on the legitimate use of violence; it would not be the only body that enforces social contracts and regulates relations. The state must also work with the international governing body to protect the liberty of its citizens. It is impossible for even the most conservative human rights doctrine to avoid co-opting some governing and enforcement powers from the sovereign states.

Yet, human rights doctrine is an essential source of liberty and freedom. Each generation of human rights doctrine grants or protects unique freedoms of individuals and groups around the globe. Even liberal democracies fail to fully protect the human rights of their citizens. For example, the U.S. fails to protect the rights of the Native Hawaiians to self-determination, self-government, and the rights to land ownership or access. Mexico fails to protect the rights of the Zapatistas to a basic standard of living (education, food, employment, land, housing, and employment), liberty, justice, and peace. In spite of liberal values protecting individuals, citizenship, and states continue to fail to protect human rights. Life, language, culture, self-determination, and landholding are at risk due to war and global capitalism. The same liberal values that protect individuals promote a spirit of capitalism that is standardizing the globe in an effort to make the marketing and distribution of goods cheaper. The standardization threatens endangered cultures, languages, and customs. Due to the failure of liberal democracy (and other types of states) to protect their citizenry, additional human rights protections for global citizens are essential.

Bridging the Gap between Doctrine and Enforcement

The Universal Declaration of Human Rights consists of a preamble and thirty articles that grant rights to all people. This is but one piece of doctrine declaring rights that are due to all people. The United Nations or branches within this organization produce many of the documents establishing human rights. United Nations member states may elect to ratify doctrine, or may not ratify doctrine. The Universal Declaration of Human Rights was written in 1948, and

is still not ratified by all members of the United Nations today. More troubling: the lack of a provision for the enforcement of rights and the lack of punishment of violators. The scope of human rights protections is broadening rapidly in doctrine, yet many of these documents lack explicit language for the enforcement of rights or the punishment of rights violators.

Examples of enforcement of human rights protections are few, often only the most egregious violations warrant punishment. For human rights doctrine to have meaning beyond the good faith and will that is invested in the careful writing of the provisions, a mechanism for the enforcement of human rights must be established. The United Nations is often implicitly, if not explicitly, called upon to reorder global disorders. Still, this organization is not the body that can fulfill the role of a global governing body: the United Nations is a membership organization, it is not a state or a government (United Nations 2001).

The surrender of sovereignty that must take place in order to establish a system of enforcement and punishment will not be easily achieved. Perhaps this mechanism has not been formed due to the power of liberal democracies in international politics. Yet, history has witnessed the shift in governing bodies from the city-state to the state. We may now be on the cusp of a transition from the state to a global polity. Globalization is changing political bodies and will possibly produce a single political body with a single polity. Human rights are positioned to be the first project for the global polity and global governance. The human rights regime might be the new expression of citizenship at the international level.

For this to occur, a system of global governance must emerge. Increasing global interdependence can apply additional pressures, forcing the creation of a system of global governance. For example, global capitalism might demand an enforcement and judicial system to protect economic interests. The protections of human rights *might* be an unintended consequence of this system of governance. This system must have the power to create binding laws, mechanisms of enforcement, and the ability to punish violators of the legal doctrine. A powerful, sovereign system of global governance can bridge the gap between human rights doctrine and enforcement.

In Conclusion

Globalization has the potential to impact the global spread of rights and freedoms via human rights doctrine. It can spread mechanisms of human rights abuse or the increased dialogue can expand human rights protections. Communications systems allow for the spread of information regarding incidents of abuses and protections. This and other mechanisms of globalization are exposing the need for enforceable doctrine via an international judicial system.

Rodríguez's title, "A 'Long Walk to Freedom' and Democracy," implies that freedom and democracy are equivalent destinations or are at least in proximity to each other. Instead of attempting to achieve both democracy and freedom — which Rodríguez argues has failed thus far — perhaps we ought to prioritize freedom. This might prove a more achievable target on its own, without the conflict that democracy and freedom together risk. Contributions from many subfields in sociology — political sociology, stratification, social theory, race and ethnicity, sex and gender, demography, and others — will ensure an expansive operationalization of freedom. Further analysis of human rights will reveal the institutional norms that maintain the meaning of human rights and civil society's expression of human rights. Then we can begin to suggest doctrinal and enforcement changes that will allow for the meaningful expansion of human liberties, freedoms, and rights.

An understanding of what it means to be human in this moment is essential. For human rights to have a meaningful impact, protecting lives and livelihood, we must continue to push the boundaries of human rights and be open to new assertions about what is minimally necessary to live as a human. Global governing and nongoverning organizations must also recognize that liberal democracy and human rights can be incompatible, and they must seek to rectify that through careful framing and implementation of protections that truly retain their ability to protect. For a doctrine to be a body of law that protects humanity, there must be mechanisms of enforcement and punishment built into the doctrine. A global justice system must be developed that is compatible with the rights doctrine and the liberal democratic ideals. The world contribution must be truly global, and not biased by capital or dominant political actors. Instead, the local and the global must act and interact to produce doctrine and a justice system that best reflects the values of a global citizenry.

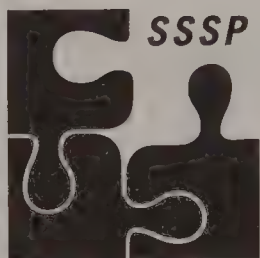
Notes

1. First generation human are rooted in liberalism, and are negative rights — "freedoms from" legislation that would hinder liberty. For example, Rodríguez considers protection from poverty. Second generation human rights doctrine offers positive rights for types of individuals, those who are members of a class of persons. Rodríguez examines second generations rights, pertaining to children in particular: the elimination of child labor and child trafficking and the protection of children from physical and sexual abuse.
2. Rights to something (e.g., the right to life) are positive liberties and freedoms from something (e.g., freedom from degradation) are negative liberties.
3. Groups can seek the rights of a group against its members, called internal restrictions, or the rights of a group against the larger society, called external protections (Kymlicka 1995:35).
4. An example of conflict occurring when a substate body attempts to usurp state-level governing power is the U.S. Civil War.

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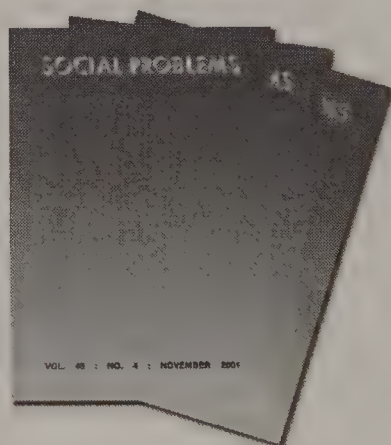
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Book Reviews

From the Book Review Editor

ANDREW J. PERRIN, *University of North Carolina at Chapel Hill*

With this issue's review symposium, I decided to break a rule that has remained fairly constant in the *Social Forces* book review: not reviewing new editions of old books. That rule serves several purposes, not the least of which is to maintain space for the new research emerging. We discard upwards of 90 percent of the books we receive for review, so "one and done" seems an appropriate policy.

But then we got the second edition of Charles Bosk's classic, *Forgive and Remember: Managing Medical Failure*, in the mail. In it, Professor Bosk offers important new information and an appendix that could be seen as providing an entirely new interpretive frame for the book. Given *Forgive and Remember's* classic status in several subfields and the new intellectual content in the second edition, I decided to offer a review symposium.

In this symposium, we present three views on the revised edition. Mary-Jo DelVecchio Good (Harvard University, Department of Social Medicine) and Peter Conrad (Brandeis University) offer commentary on the changes themselves, both from perspectives as medical sociologists familiar with the book and its impact. For a fresh perspective, I turned to Amy Weil, M.D. (University of North Carolina, Chapel Hill, Department of Internal Medicine), whose approach considers the book in its entirety — and on its first read.

Forgive and Remember: Managing Medical Failure.

By Charles L. Bosk. University of Chicago Press, 2003. 2d ed. 276 pp. Cloth, \$18.00; paper, \$14.00.

Reviewer: MARY-JO DELVECCHIO GOOD, *Harvard Medical School and Harvard University*

This year marks the twenty-fifth anniversary of the publication of *Forgive and Remember: Managing Medical Failure*, Charles Bosk's vivid ethnography of surgeons in training, developed first as a dissertation in sociology at the University of Chicago with the guidance of generous mentors — Fred Strodbeck, Charles Bidwell, Barry Swartz, and Odin Andersen, as well as Renée Fox at the University of Pennsylvania and Harold Bershad. The success of the first edition, widely regarded as a classic in medical sociology and in sociology in general — the field notes are simply wonderful as are the sociological interpretations — is being celebrated by the University of Chicago Press with the publication of a second edition. Bosk has written a new preface, "A Sociologist Puts on the Hair Shirt," and added an amended appendix, "An Ethnographer's Apology, a Bioethicist's Lament — The Surgeon and the Sociologist Revisited."

As a teacher of medical sociology, I have long been in conversation with *Forgive and Remember*, either around the seminar table or in the lecture hall, and have assigned *Forgive and Remember* to nearly two decades of Harvard undergraduates. They have read avidly, often imagining themselves as Bosk's characters, the surgical residents of Able or Baker service. Insights from the seminar table ended up at the family dinner table — and as Bosk hoped, *made the latent manifest*; "the *dirty professional secrets*" astonished surgical families in particular — "wearing the hair shirt" — "where did you hear about that?!" Many students were exposed to the emotional underbelly of medical practice and training by family and friends through Bosk-triggered conversations about errors and responsibility, learning more about raw medicine than they did shadowing their favorite pediatrician in a summer internship designed to expose them to *real medicine*.

I had similar affectively intense conversations with physicians in rural California in the 1980s when I asked, "What is the hardest thing about practicing medicine?" Physicians talked about medical failure, physician incompetence, and specialty turf battles. Reading *Forgive and Remember* in 1981 led me to pursue Bosk-generated queries. Seemingly mundane discourses on professional competence masked political emotionality and intense specialty rivalries. Bosk's conceptual project on quasi-normative errors surfaced repeatedly in this starkly different setting, without the elegant structure of academic medicine and a surgical training hierarchy (see Good 1985, 1995; Good et al. 2004; Ruopp et al. in press).

Forgive and Remember, second edition, was read by a deeply savvy cohort of students living in an era of heightened awareness of diverse environments of risk and trust (after Anthony Giddens 1990) and the documenting of widespread medical errors by the IOM Report, *To Err Is Human*. (Kohn et al. 2000). Medicine is acknowledged as a risky business beyond the risk-management team's control; 98,000 or 48,000 or perhaps only 32,000 hospital patients die each year in America from preventable adverse events, the figure depending on whose data set is examined. Even as Bosk revisits his ethnography from the perspective of his own involvement in this recent error movement and its national policy talk about increasing patient safety, and from his acquired bioethics lens and that of his bioethics social science conversationalists querying the ethics of ethnographic representations of "the other" (e.g. the residents and attending surgeons — indeed Bosk's admission of de-gendering the initial ethnography is a slick correction) — the student cohort reading the "blue" *Forgive and Remember*, second edition relish the ethnography and its emotional power. The ethnography provokes personal anxiety as well as sociological questions, as among past cohorts. All this vivid ethnographic reading has led some students to flee a medical career and to turn to social science, law, or biotechnology. Others believe ethnography has taught them what needs fixing in medicine. Many fuss over the failure of government to enact aggressive tort reform and hypothesize corrective action. They puzzle over what systems approaches would lead to greatest risk reduction; *the industrial cure* appeals at least at this stage in their education more for them than for Bosk, who after all is not hoping to become a surgeon or internist. Students wonder — could not a systems approach replace arbitrary and experience-based medicine with evidence-based universal practice guidelines? Could not a systems approach relieve twenty-first century physicians of an excessive burden of personal responsibility for decisions in patient care and protect young doctors from arbitrary quasi-normative practices by collectivities of physicians to which they as yet do not belong? Will the industrial cure lead to a safer, saner medical world or diminish, as Bosk fears (Atul Gawande 2002), individual professional responsibility and thus the profession of medicine itself?

Finally, Bosk's acknowledgment of the fuzzy boundaries of his sociological categories of errors of technique, judgment, and normative and quasi-normative errors — depending on context of course — tells it like it is for those of us in the field who continue to draw on his typology as it imposes elegant clarity, perhaps misplaced, on complex processes of questioning practice (Good et al. 2004). It is reassuring and remarkably refreshing in this new edition to find Bosk critically discussing his revisit to his wonderfully teachable book, one that is good for general sociology, for medical sociology, for sociology of the professions, and yes — in this era of bioethics power over educational resources, public agenda setting, and professional debates for American bioethics.

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Forgive and Remember: Managing Medical Failure.

By Charles L. Bosk. University of Chicago Press, 2003. 2d ed. 276 pp. Cloth, \$18.00; paper, \$14.00.

Reviewer: PETER CONRAD, *Brandeis University*

It is a rare opportunity for an author to reflect on a book nearly a quarter century after it is published and make some important corrections and caveats for the new edition. It is even rarer when a reviewer is able to review the book for a second time, with the luxury of two decades of hindsight and the light of an author's new revelations.

When Charles Bosk's *Forgive and Remember* was published in 1979 it was very well received and quickly became a standard for the study of medical error. In many ways the book has held up well. It has remained in print for all this time, is frequently cited, and has become a modern "classic" in medical sociology. I have no trouble considering this book among the fewer than ten truly outstanding ethnographies in medical sociology published in the last quarter for the century. The fascinating revelations in this book may endear this volume to a whole new generation of ethnographers.

I first reviewed this book as part of a review essay entitled "Where is the Sociology of Health and Illness?" (*Qualitative Sociology* [1980] 3(2):152-58). The essay examined five qualitatively oriented books in medical sociology and raised

the issue why were there were so few ethnographic studies of health and illness. Embedded in the essay was my review of *Forgive and Remember*. It was clear to me that this was an important book. Not only was this a fine ethnography of medical culture and the socialization of surgical residents, it was a “sophisticated” ethnographic analysis. I saw Bosk’s conceptualization differentiating technical and judgmental errors from normative or moral error as a “break-through.” He supported this with excellent ethnographic data showing how technical and judgmental errors could be “forgiven” if the neophyte didn’t repeat the error but normative errors were inexcusable in the surgeon’s code, as they reflected upon the character of the residents. Bosk gives the reader a rare glimpse of an area frequently closed to sociological researchers. Through Bosk’s eyes we see that through the surgeons’ use their socialization practices and interaction, they are able to achieve professional social control. All seems well with surgical training.

While I called this “by most accounts an excellent ethnography” I had some problems with the book. Most importantly, Bosk seemed content to take the attending surgeon’s viewpoint at face value, adopting a “topdog” view of medical mistakes. The book is essentially about the mistakes of subordinates (interns and residents); would it be different in a company of equals? I was disturbed by how strongly Bosk adopted the peculiar brand of “surgical ethics.” He accepts what the surgeon’s define as errors, completely ignoring what patients or consumers might see as error. The professional self-regulation that Bosk reports could vanish because surgeons don’t even define some events as error that other actors might see as mistakes. There were others at the time, like Marcia Millman in *The Unkindest Cut* (1976), who raised issues about patient-defined surgical errors and who concluded that surgeon’s overlooked or rationalized mistakes. By focusing on the surgeon’s viewpoint, Bosk doesn’t set his observations in the largest context of the medical system or society.

The new edition includes a new preface, an amended appendix and an epilogue, nearly 50 pages of reflection and commentary. Bosk doesn’t return to his field site, but reflects on his own research and changes in medicine and surgery since it was written. He offers both an apologia and reinterpretation of some of his original conclusions. He is self critical of his overgeneralization from his data, his underdevelopment of quasi-normative types of errors, and his under appreciation of the previous sociological analyses of social control within the medical profession. These are helpful reflective tweaking for anyone familiar with the book.

But the real “shocking” revelations are in the amended appendix. Here he presents two “stories” he previously chose not to tell. In the original book Bosk presents the example of a resident name Jones who was demeaned for various professional breaches and eventually expelled from the residency for “incompetence” and personal problems. It turns out Bosk left out one

important fact in his analysis. Jones was the only *woman* in the cohort of residents. As he notes, he changed her gender (Jones is referred to as he throughout the book) to protect the subjects' confidentiality and anonymity. But the gender switch totally changed the analysis. Nowhere do the strains of being the only woman in a male-dominated world (e.g., Jones had no access to the male residents' lounge and had to change with the nurses) and nor the sexism (and sexual harassment) of some attending surgeons and fellow residents play any part in the interpretation. How much a part did this patriarchal environment play in Jones' experience and dismissal? To his credit, Bosk is now forthright and clear about this omission. He cogently examines both its sources and costs. This revelation and discussion alone is worth the price of the second edition; it should become a case study for the dilemmas of sociological ethics in ethnographic analysis.

There is a second omission that Bosk reveals. In the book Dr. Arthur comes across as an authoritarian, ego-centric and antagonistic attending surgeon. Verbal harassment by senior surgeons was not uncommon in the 1970s, but now Bosk shows how Dr. Arthur's vicious racist, ethnic and demeaning remarks residents crossed the line. In the original analysis, Bosk examines the case of Josh Carter who wasn't retained in the surgical program, and places his failure on personal shortcomings. He now shows how Carter and other were baited and how Carter may have been forced out of the program due to his resistance to the hostile environment in which he had to operate.

In the epilogue, Bosk reflects on the changes in medicine (e.g., managed care, decline of professional authority, the rise of bioethics) and concludes that while the environment may appear more humane some of the stresses on the residents may even be greater.

Bosk is to be applauded for his reappraisal of his own work. In contrast to the surgeons, his reflections are replete with self-doubt and self-criticism. He introduces some of the contextual factors that were missing from the 1979 edition and produces a more critical book that is of even greater sociological value than the original.

Forgive and Remember: Managing Medical Failure.

By Charles Bosk. University of Chicago Press. 2d ed. 2003. Cloth \$18.00; paper, \$14.00.

Reviewer: AMY WEIL, *University of North Carolina at Chapel Hill School of Medicine*

In *Forgive and Remember: Managing Medical Failure* Charles Bosk describes and demystifies the previously hidden culture of surgical training by focusing on the ways in which errors were addressed in the 1970s. The revised edition corrects some crucial omissions he made when originally publishing his analysis.

His thesis regarding types of errors and the response to them still seems quite fresh today, even to another relative outsider such as myself — a female internist with a humanities background trained in the 1990s. However, certain advances in medical practice and changes in the social context in which patients and doctors meet do cause some reconsideration both of his theses and of his omissions. His point that his thesis is still completely apt and yet also outdated is oddly correct on both counts.

Bosk tried to understand the social milieu in which students of surgery learn on the job and are developed from tightly supervised novices gaining their skills into competent, independent surgeons. He was particularly interested in what values are used to assist in this growth, especially acknowledging that the teachers are often far from perfect themselves and that the role of their personalities may be enormous. He delineates four types of errors — technical, judgmental, normative, and quasi-normative.

The technical and judgmental errors relate to the trainees' experience and theoretical knowledge; possibly shockingly for lay people, the technical error is often the least shameful. Poor stitchery, for instance, is simply a mark of inexperience that will improve with time and practice. Atul Gawande, in his recent book of essays *Complications*, describes the way interns learn to place central venous catheters similarly — these errors are easily forgiven yet remembered to make sure they do not recur repeatedly and will give way with practice to competence, though they can be traumatic for the trainee and patient alike. (Intriguingly, I can find no evidence that Gawande, the surgeon, and Bosk, the sociologist, are aware of the other's work, though they traverse similar ground. Gawande, a surgeon himself, is rightfully more interested in the ways to cut down on error than on what they mean to his peers and supervisors.) Judgmental errors consist of acting or not acting at the right moment — operating when one shouldn't or not operating when one should. Often the outcome, rather than an absolute standard, decides whether the judgment was correct, though statistical odds are often used to argue for or against proceeding. Attending physicians, rather than trainees, are more often known to make these kinds of errors.

The normative and quasi-normative errors relate to an interpretation of the norms of the group and specifically codes of conduct of the senior attending surgeons. These are vital to a surgical trainee's career. Bosk describes how seemingly arbitrary, whimsical, and unfair these are. Normative errors are more often made by subordinates and involve breaches in informing superordinates of all unfolding events, as well as interpersonal difficulties with patients and nurses. In my own training residents making these sorts of errors were characterized as "wild" or "egomaniacal" and were perceived as making life more difficult for themselves and other trainees. For example, my supervising resident could instruct me to attempt a central line on a second side in a severely ill patient without getting a chest x-ray to be sure the lung had not

been punctured by our failed attempt. Then, when the subsequent x-ray revealed bilateral pneumothoraces (collapsed lungs), she could report this rapidly to our attending surgeon and go on the following year to become my chief resident, though I knew as an intern that we should not proceed in this way (by the book) — a significant judgmental error handled with extreme attention to normative behavior.

Quasi-normative errors involve deviating from the ways particular senior attending physicians liked things done, whether based on evidence or not. Fortunately quasi-normative errors seem to have diminished quite a bit; my residents may good-naturedly tease me about what I think is important, recognizing that I have taught them about it using evidence-based medicine (asking, for example, about seat-belt use in healthy young adults, or domestic violence in women with multiple somatic complaints). The rise of evidence-based medicine has perhaps changed what Bosk calls clinical expertise — to go against the evidence, at least in medicine, in favor of one's own opinion is unusual and thus, often, the subordinates can arrive at the correct course of action as well as the attending physician can. Bosk makes the astute observation that the seemingly more minor infractions of technique actually harmed patients, though barely sullied the trainee's reputation, though the normative errors seldom hurt patients but could be very damaging for residents in the training milieu, as they were used as markers for honesty and responsibility.

In describing the social controls applied within the group, Bosk describes three types, informal-internal, formal-internal, and formal-external. He mentions that most were the first type — peers monitoring each other or several members telling horror stories. There were few formal reviews, an exception being morbidity and mortality conferences. Even the promotion decisions were made without a clear standard; the senior physicians would meet to “weed out” those who would not continue in the program through a consensus discussion.

In the most disturbing case, where his revised edition notes that he had suppressed the gender of the doctor in question, the sole woman trainee is described as unable to communicate with peers and patients and also technically maladroit. In addition to this there was significant concern that this trainee might be psychiatrically ill and should not be trusted around patients without neuropsychiatric evaluation. No specific examples are given to support these serious claims and the trainee was dismissed and disappeared from the community. Bosk notes that she avoided him, too, so he had little basis upon which to form an opinion. (I can imagine the extreme stress of working in this environment and find it equally plausible that she was trying to hold to some impossible standard, or that she was secretly seriously ill. It seems unfortunate that Bosk could also not find any evidence that her peers reached out to her; now it is more routine that a peer might come to a supervisor out of concern for the well-being of a trainee colleague; I helped several during my own tenure

as a chief resident.) Bosk's follow-up, where he learns that the trainee went on to prominence in emergency medicine and then died early, does not give us much information to understand whether the group's instincts were on target; though one may presume that her success in another field argues against severe illness or personality difficulties.

Two areas that have progressed quite a lot since Bosk are attitudes toward patient autonomy and cultural difference. Bosk describes the "mixture of incredulity, compassion, and disgust" that the attending physicians had toward patients who delayed surgery or didn't "cooperate" because of religious beliefs, poverty, or lack of insurance. He also describes one of his omissions, where one of the senior attending physicians made personally insulting remarks to all members of the operating room staff based on their cultural differences to try to get a reaction from them. The words he chose were appalling, insulting those of Jewish, Korean, and African American origin. In my own medical school training my supervising surgical resident refused to enter the room of a "high fiver" (his words for a person with HIV infection) to check on him after stopping the bleeding from Kaposi's sarcoma of the lung. It was not clear to us whether the resident was discriminating against the disease and the potential risks it posed to him or the patient's homosexuality — either way we were clear that he was wrong. My medical student colleague took the approach of screaming at him for not treating the patient right — this was at least a local quasi-normative error. I tried a calmer approach with the same general flavor. Neither of us was able to verify whether this attitude came from our attending physician, whom we did not see very often; our resident was always extremely courteous to him, having mastered deference within the hierarchy and was rewarded with chief residency. At least in medicine we seek to understand these differences and respect them, certainly trying not to provide a different level of care to those who are already discriminated against in society. In fact, I now teach in a medical school course required of all first-year students where cultural differences are explored in order to sensitize students to such differences in an effort to provide superior care to these patients.

Bosk's book provides a framework that remains quite useful in understanding the variety and response to errors that are made in surgical and in medical training and underlines the subjective nature of the response to all sorts of errors, which are made and evaluated by imperfect human beings. The book is less up to date in the areas of patient rights, informed consent, gender issues, and cultural competence in which the medical profession in conjunction with society has fortunately moved ahead.

Human Institutions: A Theory of Societal Evolution.

By Jonathan H. Turner. Rowman & Littlefield, 2003. 309 pp. Cloth, \$75.00; paper, \$29.95.

Reviewer: STEPHEN VAISEY, *University of North Carolina at Chapel Hill*

In reviewing any work of Jonathan Turner's, one thing must always be said up front — he is certainly ambitious. One year after the publication of his theory of micro-level interactions (*Face to Face: Toward a Sociological Theory of Interpersonal Behavior*, Stanford University Press, 2002), he is at it again, this time with a theory of macro-level social organization and change. There are few theorists today who can jump convincingly between such disparate levels of analysis, but Turner is certainly among them.

His objective here is to analyze the historical development of the major social institutions: economy, kinship, religion, polity, law, and education. These institutions were of central interest to early sociologists but are now, he argues, largely ignored because of the “mesolevel bias” in contemporary sociology. He explains: “I am trying to revive ‘the Old Institutionalism’ (i.e., functionalism) because ‘the New Institutionalism’ is more about mesolevel processes than macrodynamics. Sociology needs an analysis of institutions, per se, rather than a view of institutions as merely ‘environments’ for organizations.”

Yet Turner's goal is not to raise the ghost of Parsons or of Davis and Moore; in fact, he criticizes the logic of previous functional theorists. While they were on the right track, Turner contends, they missed the mark by thinking in terms of static “functional requisites” rather than dynamic processes. By contrast, Turner seeks to analyze social institutions through an investigation of the fundamental, macro-level *forces* that affect all societies. He argues that these forces — population, production, distribution, regulation, and reproduction — operate in the social world in much the same way as (say) gravity operates in the physical world. His logic is also explicitly evolutionary, in that he maintains that these forces change societies by placing *selection pressures* on them. Faced with these pressures, societies must either adapt or fail. On the face of it, this is a compelling project, especially for researchers who believe that sociology should attempt to be “scientific.”

In developing this theory, Turner relies heavily on the writings of Herbert Spencer, while bringing in supporting insights from other theorists such as Émile Durkheim and Gerhard Lenski. Along with many figures and tables, he formally outlines his basic propositions using “quasi math” equations, which show in detail the relationships between key elements of larger processes. This is helpful, since it allows a level of clarity not often attained in sociological theory.

After laying out the theory, Turner spends the rest of the book exploring the ways in which these macrodynamic forces lead to the origin and evolution of social institutions. He traces their development thorough various types of societies, from hunter-gatherer to postindustrial. The analyses are complex, yet accessible, and shed considerable light on how seemingly unrelated processes can work together to create and alter the fundamental fabric of society. The wealth of previous research that the author mobilizes to make his case is quite impressive.

Despite these strengths, however, the book contains some weaknesses that at least partially undermine the book's goals. Foremost among these lies in the author's attempt to move from "functional requisites" to "forces." While this shift sounds promising, the language of the arguments often belies the functional requisites lurking just below the surface. For example, the description of the "force" of production begins: "In order to survive biologically, humans must gather resources from the environment and convert them into usable commodities that sustain life." This sounds a lot like a functional requisite. Sometimes Turner's desire to use the new language results in awkward sentences, for example: "Regulation generated selection for polity and law as a means to coordinate and control the larger population." Isn't this the same thing as saying "larger populations need to be regulated, so polity and law develop"? Functional requisites appear to be alive and well.

For some brave readers, however, this will not be a problem. Those who have overcome their anti-Parsons indoctrination (by reading him, perhaps) will find that this book has a lot to offer our understanding of macrosociology. Turner's main contribution is that he allows functional requisites to vary in importance with environmental and social factors. This is indeed a vast improvement over "vulgar functionalism." His analysis of the importance of population dynamics in institutional evolution is also an important contribution. Moreover, many of his propositions are actually testable — which is always an unexpected pleasure in theoretical work. In short, though this is by no means a perfect book, it is a worthy effort both to revive institutional analysis and to put scientific macrosociology on a solid footing. Despite its flaws, it deserves to be read, understood, and argued with.

Collaborative Circles: Friendship Dynamics and Creative Work.

By Michael P. Farrell. University of Chicago Press, 2001. 324 pp. Cloth, 45.00; paper, \$27.50.

Reviewer: RANDALL COLLINS, *University of Pennsylvania*

Collaborative Circles is an important advance in the sociology of creativity. Farrell develops his theory by comparing the histories of a number of

collaborative groups, chiefly in art and literature, but also Sigmund Freud's early collaborations and the originators of the American women's movement. Such groups typically have three to five members, rarely more than seven or eight. Farrell argues that the group's lifetime, usually about 10 to 15 years, goes through seven stages:

(1) Formation occurs when a number of individuals of similar cultural resources and in an early career stage gather in a "magnet place," often introduced to each other by a gatekeeper, who acts as the center of a radial network. (2) Rebellion occurs against established authority; the group is negative before it becomes positive. Roles appear within the group: a charismatic leader, narcissistic and energetic, who is idealized by the others; a tyrant figure outside the group, vilified by their attacks; a "lightning rod" who epitomizes the group's rebellion by expressing anger, both against outsiders and by conveying criticism from outside into the group. (3) The quest stage is a period of negotiating a new vision through intense group discussions. Here appear "boundary marker" roles, members who become criticized either for being too conservative and selling out, or too radical and endangering the group by going too far. By comparison with these boundary markers, the group establishes its own central identity.

(4) Creative work now is done, following the group's program; most fruitfully, this is done by splitting into smaller collaborative pairs who paint or write side by side, correspond or discuss intensively; each gives the other emotional support and provides confidential criticism so that creative possibilities may be thrown open without inhibition. (5) In the collective action stage, the group acts together to present its work to the public: by staging painting exhibitions, editing a journal, or in the case of a social movement, holding public meetings. Now a central group role becomes that of the executive leader who manages practical activities. (6) In the separation stage, the group breaks apart; members individuate, establishing distinctive identities and styles, acquiring emotional maturity and losing the need for dependence; as some become publicly recognized, quarrels occur over individual credits; the practical exigencies of collective action, too, put additional strains on the group. (7) Years later, the group may reassemble for nostalgic reunion.

The seven stages are most fully represented in the French Impressionists. A number of stages (especially collective action and nostalgic reunion) are missing in other cases (e.g., the Oxford group of J.R.R. Tolkien and C.S. Lewis in the 1920s; Freud's collaborations with Joseph Breuer and with Wilhelm Fleiss in the 1890s; the Rye group around Henry James, Joseph Conrad and Ford Madox Ford in the early 1900s). In the case of the American women's rights movement, the collective action stage is there from the very beginning; indeed, the movement follows the classic path of breaking away from prior social movements (temperance and slavery abolition). Farrell intends his model to contribute to a general theory of group development. It is useful to compare

his findings to those of Mullins (Nicholas C. Mullins. *Theories and Theory Groups in Contemporary American Sociology*. Harper & Row, 1974) who studied “theory groups” in sociology, as well as the founders of molecular biology. Mullins depicts four stages: (1) small-informal group forms around an intellectual leader, in the midst of routine science. (2) This is supplemented by an organizational leader who establishes a formal research and training center; an intellectual program is now publicized, and new members are attracted, up to around 40. (3) The network widens through students and adherents; the program turns into dogma and is enshrined in textbooks; communications become more formal, and the core network becomes surrounded by a cluster of followers, with a total of 20–100. (4) Routinization sets in with success, and special attention is no longer attracted. Mullins’s second and third stages take, respectively, 4–14 years and 4–8 years, with the first and last stages indeterminate in length; the total life time of a theory group thus is similar to that of Farrell’s groups. Scientific groups grow much larger than the literary/artistic groups and, being more dependent upon research equipment and jobs, turn more formal and emphasize the role of the organizational/executive leader earlier. Farrell makes an especial contribution in bringing out the further differentiation of group roles besides the two types of leaders (boundary markers, lighting rod, peace-maker, etc.).

Farrell argues that a collaborative group appears because its recruits are marginal to a center of established leaders; it is because they are not prot,g,s that they are able to break away in new directions, as well as being able to interact fluidly as equals. My own data on creativity in networks of philosophers (Randall Collins. 1998. *The Sociology of Philosophies. A Global Theory of Intellectual Change*. Harvard University Press, 1998) contradicts this theory; the most eminent philosophers throughout history have tended to be very close to the networks of previous eminent thinkers, so much so that the guiding principle is that the greatest concatenation of eminence through direct and indirect ties breeds the greatest amount of subsequent eminence. Zuckermen found the same thing among scientists, with Nobel Prize winners tending to be pupils of previous winners (Harriet Zuckerman. “Nobel Laureates in Science: Patterns of Productivity, Collaboration, and Authorship,” 1967. *American Sociological Review* 32:391-403). Philosophers often have formed circles as well, ranging from ancient China to the Vienna Circle of the 1920s and 1930s, but such circles frequently have grown up around network connections back into previous lineages of eminence.

How to reconcile the two models? Is literary/artistic creativity more “horizontal” and marginal, while intellectual creativity is more “vertical” and hereditary? Marginality is not necessary for innovation; revolutions within the citadel are common in the intellectual world, as each new generation of prot,g,s recombines inherited cultural capital, negates some aspects of previous positions, and stakes out new lines of argument both against the old generation

and against rival contemporaries. Contrary to a widespread myth propagated by artists themselves, a peripheral position condemns one to coming too late into the sophisticated center of the action; the most successful rebels are those who most quickly capitalize on the opportunities for new combinations that are visible at the center.

Farrell misses this, I think, because he focuses so closely on collaborators that he tends to leave out the larger intellectual networks. Why did Freud go on to fame, while his early collaborators Breuer and Fleiss ended in obscurity? In part, Freud comes from a superior network, combining the most eminent philosophy teachers in Vienna with the lineage of revolutionaries in physiology; he had richer network connections than his collaborators, who were more narrowly focused in psychiatry (see Collins 1998:690-93). Farrell also leaves something of a blank on the side of the larger intellectual field (or in Bourdieu's terms, the field of cultural production). It is hard to tell who Farrell's groups are connected to farther out, and there is no way to check systematically whether they fit or escape from the pattern of eminence breeding eminence, because Farrell provides no measure of anyone's eminence. He gives a lot of attention, for example, to Donald Davidson in the group of fugitive poets, although he is apparently a rather minor poet compared to John Crowe Ransom and Alan Tate, and Davidson chiefly illustrates that the organizational leader of a literary group is usually not a successful literary creator. Similarly, the collaboration of Joseph Conrad and Ford Madox Ford resulted in a much greater creative impact by the former; Ford at best was one of those secondary figures, like Friedrich Engels in relation to Karl Marx, who facilitate others while staying in the shadows. These patterns would come out more clearly if we would go on to construct a measure of relative eminence in literary and artistic fields and to chart more widely the network connections among persons of different ranks.

All this is a matter of extending Farrell's work, putting it into a larger theoretical and empirical context. Since he is building on a tradition of research on group dynamics that goes back to Bales, Ted Mills, and others, Farrell focuses on the inner dynamics of the group. On his chosen ground, his analyses are illuminating and full of fascinating detail. Farrell's work makes a wonderful complement to larger network-oriented research on creativity. And in exploring the collaborative groups that launch social movements, he breaks new ground. Social movements operate in a different kind of attention space than intellectual and artistic movements, however; much research needs to be done to investigate what kinds of vertical and horizontal network connections operate here, providing the environment of alliances and rivalries in which movement circles form. Research is needed, too, comparing unsuccessful with successful groups. Farrell has crystallized a great deal of theoretical insight, and he opens the way for more.

Persistence and Change in Rural Communities: A 50-Year Follow-up to Six Classic Studies.

Edited by A.E. Luloff and R.S. Krannich. CABI Publishing, 2002. 189 pp. Cloth, \$69.50.

Reviewer: SONYA SALAMON, *University of Illinois at Urbana-Champaign*

A twentieth-century landmark project, stimulated by societal urbanization, industrialization, and agricultural transformations was *The Culture of Contemporary Rural Community*, sponsored by the U.S. Department of Agriculture, Bureau of Agricultural Economics (BAE). These same trends also motivated the classic community theorizing of Tönnies. The BAE studies produced descriptions of regional and culturally distinctive places, focusing on the resiliency of farmers and communities. Of the original six 1940s BAE community series, none had great theoretical impact nor were the distinctive community cultures in any of them made transparent. Together, however, the classic set provides a comparative snapshot of U.S. rural life centered on farming systems undergoing rapid restructuring as the nation emerged from the Great Depression and faced World War II. The communities were selected to represent points on a continuum from stability (Pennsylvania Amish) to instability ("Dust Bowl" Kansas). The other four communities represented locations between these extreme social and economic stability cases. Since the BAE project the industry of American agriculture has undergone further mechanization and concentration and is heavily supported by government subsidies; many, especially women, must work off the farm to survive.

Although follow-up community studies are rare, it is an ideal way to capture change. This book by rural sociologists revisits the original BAE communities to learn what characteristics have persisted and whether predicted changes took place. The comparative framework provides snapshots before, 50 years after, and in several cases points in between, to present a window on rural community change and the evolution of research methodologies. The theoretical framework leans heavily on the work of R.L. Warren (*The Community in America*, 3d ed. Rand McNally) and K.P. Wilkinson (*The Community in Rural America*. Greenwood Press, 1991). A final chapter considers trends in community organization and capacity building in the context of theory and rural development policies since the BAE studies. Overall, the communities did not evolve as expected, a testimony to the unpredictability of societies, technology, and the economy.

Sublette, Kansas, restudied by L. Bloomquist, D. Williams, and J.C. Bridger, was unexpectedly resilient. Adoption of irrigation (using the Ogallala aquifer), along with the introduction of large cattle-feeder lots and meat-packing plants

in neighboring counties, caused population growth and diversification. Irwin, Iowa, restudied by E.O. Hoiberg, evokes the richest sense of community from his spending considerable time doing the restudy. Considered a stable BAE community, Irwin's voices today detail struggles with declining population and economic marginalization. Harmony, Georgia, in the southern Black Belt was restudied by G.P. Green in a well-done chapter. Race and class still matter. What was the community is mostly covered by a man-made lake that has increased both tourism and social stratification. El Cerrito, New Mexico, restudied by R.S. Krannich and C. Eastman, faces challenges similar to those of the 1940s — isolation and marginal natural resources but the strong Hispanic culture still enhances a sense of community. The Amish of Lancaster County, Pennsylvania, restudied by A.E. Luloff, J.C. Bridger, and L.A. Ploch, endure the challenges of growth, development, and regulation. They show remarkable creativity by adapting yet maintaining their cultural and religious integrity. Finally, Landaff, New Hampshire, restudied by F. Schmidt, E. Skinner, L.A. Ploch, and R.S. Krannich, is being changed economically, physically, demographically, and socially by urbanites who find its rurality and scenic ambiance attractive.

Agrarian field studies of short duration, the original BAE work was not thorough; women and children, for example, were largely absent. Stylistically, patterns were distilled, but few methodological details were provided about how conclusions were arrived at. Unfortunately, most of these follow-up studies suffer from similar problems. A methodological appendix that included comparative demographic data and time spent in the communities would have made the book more rigorous and provided a context for change. The rural sociologist authors are respected for their quantitative skill with national or local survey data. With the exceptions of Hoiberg and Green, the authors fail to attain the rich and thick data standard required for a qualitative study. Thus, the present studies, like the original BAE studies, are descriptions in which the social or other phenomena reported seem to represent statistical averages. Women appear more often, but neither their voices nor men's for that matter, are provided. Historians and anthropologists now tell us that an approach that assumes the perspective of the persistence of culture is inherently flawed. Culture is always changing — some elements more quickly than others. Focusing on persistence rather than continuity or resilience therefore compromises the effort in this book.

One Nation, Underprivileged: Why American Poverty Affects Us All.

By Mark Robert Rank. Oxford University Press, 2004. 356 pp. Cloth, \$29.95.

Reviewer: JOHN ICELAND, *University of Maryland*

Mark Rank has written a timely book on poverty issues, as 2004 marks the 40th anniversary of the War on Poverty. While the period of the mid to late 1960s was one of energy and optimism about the fight against poverty, the following decades brought tougher economic times, diminished expectations, and cynicism about the ability of the government to combat poverty.

Rank is troubled by the lack of progress against poverty and by the fact that this issue is low on the list of the nation's priorities. The book's main thesis is that poverty results from systematic failings within U.S. economic and social structures, that a majority of Americans experience poverty during their adult years, and that poverty is an issue of vital national concern. Thus, Rank argues that poverty amidst plenty is "unwise, unjust, and intolerable."

The book has three sections. The first documents the extent of poverty in the U.S. and includes cross-national comparisons. It presents analyses showing the structural causes of poverty, including the lack of decent-paying jobs and the weak safety net and demonstrates that a majority of Americans experience poverty at some point. In part 2 Rank argues that reducing poverty is in our self-interest, consistent with core American values, and part of our shared responsibility.

Part 3 offers a "new paradigm" for change based on the causes and effects of poverty described previously. Rank advocates policies that create adequately paying jobs (e.g., public service employment), increase the access and availability of social goods (e.g., quality education and health care), buffer the economic consequences of family change for children (e.g., child support policies), build assets of individuals and communities (e.g., increase home ownership), and provide an effective safety net (e.g., strengthen and consolidate current means-tested programs).

The book has several strengths. One is the combination of quantitative data with qualitative interviews of low-income people in part 1 of the book. This discussion provides both an overview of the problem and laudably attaches a human face to it. A second contribution is the inclusion of Rank's previous work that shows how a majority of adults experience poverty at one time or another — this is a unique contribution to the "dynamics of poverty" literature. Third is the extended discussion of why we should care about poverty — including references to the role of values and even citation of scripture — often not contained in this type of research.

That said, not all Rank's contentions are fully convincing, such as the assertion that the book provides a "radically different perspective on American poverty." While some of the empirical research is new, this is still a bit of an

overstatement, as most of the perspectives discussed are held by mainstream sociologists, even if not by the public as a whole. For example, as Rank notes, the argument that poverty's roots are structural has a long history in the poverty literature (e.g., Robert Hunter and Seebohm Rowntree). Perhaps what can be said is that the issues are brought together in a fresh, coherent, and persuasive manner.

The final part of the book could have benefited from a fuller discussion of potential trade-offs of various policies, such as the tension between providing an expansive safety net and its effect on economic growth (which has long-term consequences for absolute poverty). Rank too quickly dismisses the latter concerns, even though they figure prominently in both U.S. and especially European policy debates. Finally, while Rank contends that the safety net in the U.S. has weakened over the past 25 years, it might be more accurate to say that means-tested transfers are now concentrated in in-kind benefits (e.g., earned income tax credit, Medicaid) — many aimed at working families — rather than cash assistance programs that are no longer entitlements. This is a momentous policy shift to be sure, with a number of potential pitfalls for the poor, but one that could be more fully discussed.

Overall, *One Nation, Underprivileged* is an admirable and thoughtful book that is likely to stimulate lively discussions on poverty at a time when renewed attention on this issue is needed. It exhorts people to think about what kind of society we want to live in and provides a convincing argument that because the roots of poverty are structural, broad-based structural solutions are needed to combat them.

Poverty in America: A Handbook.

By John Iceland. University of California Press, 2003. 206 pp. Cloth, \$50.00; paper, \$19.95.

Reviewer: EVA FODOR, *Central European University*

I wish I had access to this book last year when I taught an undergraduate course on poverty! John Iceland's *Poverty in America* would have been the perfect background material for my classes as it would be similarly useful were one to teach about social inequalities in the U.S., or American society in general. It is comprehensive, easily accessible, up-to-date, and has a vast reference section for those who want even more detail. It could serve as a textbook for upper level undergraduate or graduate courses, or as a reference book for instructors trying to construct undergraduate lectures. It is an intelligent, balanced, and carefully research handbook, which should have been published a long time ago.

Iceland's book provides a lot of useful empirical information on poverty: head counts and poverty gaps, changes over time in aggregate levels and the dynamics of the individual experience of poverty, the composition and the geographic distribution of the poor, the shape, the cost, and the efficiency of social policy measures targeting the poor, as well international comparisons of poverty levels and gaps. Much of this information is available in other books or online, but Iceland presents them and explains their significance in a persuasive, logical and easily accessible way. What makes this book unique, however, is his consideration of the social construction of poverty through the discussion of changes (and variations) in poverty measures and his careful analysis of the causes of the persistence of high poverty rates.

A whole chapter (chapter 3) is devoted to the discussion of the measurements of poverty and this is one of the highlights of the book. Not only does Iceland review the different ways in which poverty may be assessed — absolute, relative, subjective measures, social exclusion and hardship indicators, etc. — but he also points out the strengths and weaknesses of each measurement. The comparison of the level of poverty in the U.S. using three of the income related indicators and the international comparisons through both absolute and relative poverty measures highlights the underlying argument about the constructed nature of poverty and poverty statistics and the role of governments, social scientists, and the general public in defining what it means to be poor. Rarely do we see such an empirically rich discussion of this idea. Iceland also makes a good case for the quasi-relative poverty measures which have become popular recently.

The chapter on the evaluation of the weight of possible factors which correlate with changes in poverty rates, such as the growth in per capita income, changes in family structure, and overall economic prosperity, also merits praise. Iceland uses sophisticated statistical methods to make his point but presents the results of the decompositions through easily understandable graphs, which shouldn't scare even the most math-phobe undergraduate. His argument about the primacy of income growth and the relatively small significance of family structure explaining changes, or lack thereof, in poverty rates is original and well supported. It is perhaps odd to find a whole chapter (chapter 6) devoted to the presentation of in-depth, original research in a handbook/textbook type work. Yet, I found this an excellent idea because this chapter might provide students with a glimpse at how information about poverty is gained and how sociological data analysis could be meaningfully carried out and presented. Thus it serves not only the purpose of presenting the results but also the process and methodology of research on poverty.

Although the emphasis in the book is on empirical data, Iceland presents a number of theories explaining poverty or evaluating the plight of the poor. While the very brief discussion of Marx and Weber is somewhat simplistic and even perhaps unnecessary, the careful and straightforward presentation of a

number of mid-range theories, such as the culture of poverty argument, the discussion of the declining significance of race, trickle-down economics, as well as theories of gender and racial segregation and discrimination, is exemplary.

In sum, I am impressed by Iceland's precise, yet easy-going presentation style, by his command over a vast amount of empirical data, and by his ability to explain complex concepts and theories in an interesting and accessible way. This is an excellent handbook, which should be widely used in and outside of classrooms.

Race in the Schools: Perpetuating White Dominance?

By Judith R. Blau with Elizabeth Stern and other collaborators. Lynne Rienner, 2004. 237 pp. Cloth, \$49.95; paper, \$19.95.

Reviewer: PRUDENCE L. CARTER, Harvard University

Judith Blau and colleagues do not mince words in their latest book about their position that whites' ideological beliefs about blacks and their culture(s) are undermining the progress of not only students of color but also white students. Advocating cultural pluralism, Blau and colleagues argue that it will be impossible to attain as long as whites see themselves as the criterion group that others must emulate within schools and other spheres of society. They also claim white liberalism poses a problem for America's schools because it cannot easily accommodate cultural diversity and group differences since "it emphasizes rights for individuals as detached persons and not as one of their rights to identity, group membership, and social roots." Liberalism, they assert, has a slant toward monoculturalism and assimilation; and many who hold liberal views are limited by their lack of attention to cultural inequality within schools and other social institutions.

Though liberals and conservatives alike might charge that Blau and colleagues use this book to promote their own ideological agenda, the two introductory chapters positing these assertions are some of the book's most provocative parts. Unfortunately, the subsequent empirical chapters only appear to indirectly address this central claim. The authors do less empirically to prove the ill effects of liberalism and instead succumb to taking a defensive stance against those who hold narrow perspectives about blacks, their culture(s), and ability by trying to prove that black adolescents possess the same tastes and values for education, are either equally or more highly principled than white youth, and that white adolescents are likely to suffer from being segregated in homogeneous neighborhoods where there is little economic inequality. To substantiate these arguments, they use multivariate analyses of data from the National Educational Longitudinal Study (NELS), a nationally representative study of a cohort of 8th graders born in 1974, and the High School Effectiveness

Study (HSES), a representative study of 8th graders from the 30 largest U.S. metropolitan areas and their follow-ups with the same students over a six-year period.

In these postindustrial economic moments, according to the authors, whites are now anxious about their economic well-being and consequently have recast a seemingly benign set of foundational U.S. values centered on individual success to support their assumptions and claims about their superior efforts and attitudes and thus their rights to be on top. They also claim that whites now segregate themselves within neighborhoods and within tracked curricula, maintaining disproportionate control of the upper echelon of academic classes. Shifting the lens of hypersegregation away from poor blacks and Latinos, Blau and colleagues argue that economic and residential segregation, as well as and whites' limited interracial contact in their schools and neighborhoods, limit their "social learning" about others and the world about them. Obviously, their mission, though laudable, is to prove the benefits of interracial schooling and neighboring for whites. For example, they show that white students living in neighborhoods with relatively high levels of social inequality and diversity are less likely to engage in substance use. Moreover, they claim that white students enrolled in small to medium-size schools with diverse student bodies are most likely to experience positive racial relations, which in the authors' opinions will benefit them in their adult lives.

Since the book is focused primarily on social relations, certain questions about academic achievement and attainment are less investigated. For instance, they do not advance our knowledge about why black and Latino students are more likely to engage in behaviors that are not conducive to high achievement, such as cutting and being late for class. What are the salient social and cultural processes occurring within schools that might derail these students' interests in their classes, and how is white liberalism implicated in these processes? It is interesting that the authors deduce that relatively lower test scores, and comparatively lower achievement than Asian and white students, do not preclude blacks from pursuing postsecondary schooling options. Blacks have different test-taking orientations than whites, the authors claim, and thus, they do not allow standardized test scores to dictate their decision of whether or not to attend college. They suggest the aspirations and a taste for educational attainment exist among blacks, in fact to a greater extent than among whites, within the average range of test scorers.

Overall, *Race in the School*, reads like an effort to challenge scholars, researchers, and laypersons who shout that misplaced cultural values account for the academic state of black students. While the book convinces this reader that the sharing of certain values across racial and ethnic groups is not a problem, it left me waiting for more to be written about liberal school's complicity in promoting cultural inequality and their contributions to blacks' and Latinos' academic lag behind Asians and whites. In the end, the threads

that could weave together a larger argument about such liberal spaces were lost under a compendium of findings about racial relations, values, and aspirations.

Muslims in the United States: The State of Research.

By Karen Isaksen Leonard. Russell Sage Foundation, 2003. 199 pp. Paper, \$17.95.

Reviewer: DALIA ABDEL-HADY, Southern Methodist University

Given the rising interest in Muslim communities in the U.S. and around the world, Karen Leonard's new book provides a timely overview of social science research on American Muslim communities, pinpointing gaps and directions for current and future research. The book goes beyond the current literature and presents a thorough analysis of the social, political, and intellectual lives of Muslims in the U.S. Offering both rich descriptions and cogent analyses, Leonard contributes a much-needed guide and reference for academic disciplines studying U.S. Muslims today.

In the first two, historical, chapters, Leonard sketches the diverse origins, political positions, and religious beliefs among American Muslims. In chapter 1, "The Development of Ethno-Racial Muslim Communities," Leonard distinguishes African American, Arab and Arab-American, and South Asian Muslim communities in terms of their sectarian affiliations, historical presence, and interaction within the ethno-racial structures of U.S. society. (The book also includes three appendices that provide helpful historical background on Islam and the Islamic presence in the U.S.) Chapter 2, "Converging Histories in the Twentieth Century," outlines the history of various Muslim communities' political organization and undertakes and accomplishes the difficult task of defining the Muslim population given its numerous internal and conflicting boundaries. Specifically, Leonard's analysis of politicization efforts includes both the relationship between Muslim spokespeople and the state and the way community members view their spokespeople. Further, she discusses the impact of September 11, 2001, on the political life of the community. After the historical overview, Leonard moves on to analyze the current research on Muslim communities, highlighting the need to study small communities in a way that reflects the diversity of, in this case, Islamic beliefs. The third chapter, "Historical Research Issues," makes a sound argument for the need to study unmosqued individuals who may still identify with Islamic culture. As most scholarly research has focused on mosque populations for investigating Muslims, the study of secular Muslims is largely lacking.

While the main part of the book deals with contemporary research issues, Leonard does an excellent job of introducing the reader to the various histories and belief systems that are key to current contestations among U.S. Muslim

communities today. Stressing the lack of comparative research, Leonard highlights the tensions along the lines of class, race, gender, sexuality, national origins, and generation among U.S. Muslims. These tensions, the author accurately argues, stem from the differences between Islam as a religion and Islam as a culture. The four chapters "Contemporary American Muslim Identities," "Muslims in the American Landscape," "Islamic Discourses and Practices," and "Becoming American" point to U.S.-specific experiences, limitations, and reinterpretations of texts and thus the need to contextualize U.S. Muslim communities within the U.S. religious studies. Furthermore, Leonard illustrates that while current research on U.S. Muslim communities has studied how they negotiate different identities, interact with the state, and are experiencing a deemphasis in sectarian divisions, the "Americanization of Islam" remains a compelling phenomenon that continues to be understudied.

In establishing her argument, Leonard draws on a variety of sources. Her book employs social science and legal research, as well as theological investigations, journalistic writings, expressive culture, and popular texts to vividly point to the plethora of underutilized sources and reference materials that would only enhance our understanding of the Muslims in the U.S. today. In the last chapter, "Contemporary Research Agendas," Leonard briefly contrasts the research undertaken on Muslims in the U.S. with that in Europe, arguing that U.S.-specific experiences of Muslim communities need to be taken up by scholars in many academic fields. While more research on Muslim communities in the U.S. is being funded and published since 9/11, broader issues and trends that Muslims share with the dominant religious groups continue to be unexamined. These issues, Leonard concludes, are important for our understanding of American pluralism and the role Muslim-U.S. play in developing U.S. civic culture.

Locked in Place: State-Building and Late Industrialization in India.

By Vivek Chibber. Princeton University Press, 2003. 334 pp. Cloth, \$39.50.

Reviewer: RICHARD LACHMANN, *SUNY-Albany*

India seemed like one of the best bets, among newly independent countries in the 1950s, to make the leap to industrialization. South Korea, on the other hand, seemed likely to remain a poor agrarian society, stuck behind its more advanced northern twin. Of course, things turned out quite differently. India, at least until the 1990s, failed to advance relative to other Third World nations. South Korea rose to first-world status on the basis of a strategy of export-led industrialization.

Chibber, in an initial theoretical chapter that offers the clearest explanation yet produced of the political economy of development, reminds us that India

and Korea both pursued policies that relied upon state subsidy and planning. Neither nation, despite the claims of neoliberal proponents of Korea, accepted free trade or economic deregulation. Korea differed from India in that it abandoned the strategy of import-substituting industrialization pursued by all developing nations in the 1950s in favor of an export-oriented strategy. Many developing nations, plagued with overproduction for weak domestic markets and under pressure from the U.S. to repay loans with foreign exchange, sought to make exports the new engine of their industrialization. Most aspirants lacked access to developed markets for their goods. Chibber convincingly shows that Korea's success was due to the happy coincidence that Japanese firms, which did have access to U.S. markets, sought in the early 1960s to move up to higher-margin products and so ceded their networks for textiles and other cheap goods to Korean firms in return for shares in Chaebols. Indian enterprises lacked such access abroad and so followed the more feasible and lucrative path of selling shoddy products at high margins to home markets protected by tariffs.

India's import-substitution planning suffered from opposition by domestic capitalists. Chibber describes how Indian industrialists allied with Congress party leaders to undermine labor unions that could have served as a counterweight to capitalists in the immediate postindependence years when planning legislation was passed. In the absence of effective working-class opposition, Indian industrialists were able to ensure that government planners never received the power to impose discipline on capitalists who diverged from the investment plans that justified their subsidies. India was left with a weak planning bureaucracy, which was further undermined by challenges from other government ministries. Korean government planners, in contrast, were able to coordinate resources and information among government ministries and with the Chaebols and thereby were able to enforce "the 'disciplinary' aspect of 'embeddedness.'" Indian bureaucrats found it rational to award industrial licenses (which were de facto monopoly rights to a particular line of production) to existing large enterprises because such decisions were easier to justify, even if those firms often "banked" the licenses to forestall competition and to await favorable conditions to begin production (often years down the road). Facing challenges from rival ministries and lacking political support from the top of the government or the Congress party, Indian planning officials never could make credible threats to withdraw licenses or to take back allocations of foreign exchange or other resources. As a result, it was rational for firms to hoard licenses and to reallocate resources from promised investments. Indian capital remained stuck in luxury production and backward industries. Korean planners, with a unified government behind them, could make credible threats to withhold resources. As a result, Korean Chaebols almost never called the government's bluff and investment plans and production standards were followed to the letter.

Chibber makes real his theoretical and broad historical analyses with a detailed concrete study of how government policy actually was made in Korea and India. He shows the conflicts and interactions among state agencies and the ways in which capitalists came together to demand certain policies or divided and allowed room for greater state autonomy. In the final section of the book, Chibber compares India with a variety of cases to explain why India did become locked in place and was unable to adopt a different developmental plan when the problems with Indian import substitution became apparent. Chibber convincingly argues that India never could have switched to a successful export-oriented strategy. Such opportunities were rare and, as with Korea, largely dependent on outside help never available to India. More realistically, India could have adopted a better-crafted policy of fostering domestically oriented industrialization. Key to such a strategy would have been the strengthening of the labor movement, as happened in the Communist-led Kerala State, which enjoyed the highest rate of growth and the healthiest social indicators in India.

India's divided and pro-capitalist state created an opening for the personalistic and corrupt regime of the Indira Gandhi years, which led business to demand internal deregulation combined with continuing protection from more efficient foreign competitors. Chibber's model thus explains not only the lack of reform during the crucial decades when East Asian rivals grabbed the available international opportunities but also the limited nature of recent reforms. This book should become a cornerstone in all future efforts to explain divergent paths of development, and it will serve as a model for how to understand state policymaking and implementation in all types of economies.

Solidarity and Contention: Networks of Polish Opposition.

By Maryjane Osa. University of Minnesota Press, 2003. 240 pp. Cloth, \$65.95; paper, \$21.95.

Reviewer: MICHAEL BIGGS, *University of Illinois at Urbana Champaign*

In 1989 Poland became the first country to reject Communism at the ballot box. This unprecedented free election came after the Leninist state was forced to negotiate with Solidarity, a broad-based social movement, following years of repressive martial law. Explaining how Solidarity first emerged in 1980 therefore has huge historical significance. This book takes up the challenge, comparing what happened in 1980 with two earlier episodes: 1956 and 1966-68-70. The author's explanation deploys the familiar trinity of political opportunities, mobilizing structures, and cultural framing.

Political opportunities explain the upsurge of protest in 1956. De-Stalinization, emanating from the Soviet Union, divided the Party elite. In

response, workers and students took to the streets demanding economic improvement, political freedom, and national autonomy. The Party elevated a reformist, Wladyslaw Gomułka, to the position of first secretary, but he soon turned against the opposition. For the other waves of protest, however, political opportunities appear less significant. Indeed, they seem to be overshadowed by economic grievances. Strike waves in 1970, which forced the Party to replace Gomułka with Gierek, and in 1980, which led eventually to Gierek's downfall, were both provoked by steep price rises. Closer attention to changes in the real wages and working conditions of industrial workers would have been useful.

Mobilizing structures are the centerpiece of the book. Rather than continuing to debate the concept of "civil society," the author has collected data on 45 formal and informal organizations outside the Communist Party. Biographical information on 1700 members reveals the organizational network, with ties between any pair of organizations measured by the number of individuals belonging to both. The result is a series of nine detailed portraits of the network before, during, and after each upsurge. Despite cyclical fluctuations, the network grew in size and cohesion at each peak of mobilization. By 1978-79, it was larger than ever before. "The number of strong ties grew, groups representing various social/ideological categories were strongly linked to organizations outside their sectors, and brokerage roles were shared between the older Catholic core groups and the new civic associations." When Solidarity emerged in August 1980, it became the central node, connected to 14 other organizations.

Cultural framing is the third component of explanation. "In the Polish case, the us-versus-them formulation was a master frame that allowed various collective action frames to collect comfortably under its umbrella." This form of binary opposition is surely universal; what really matters is its content. The book describes evocatively how the dichotomy was enacted through ritual. At the end of the 1950s the Catholic Church began organizing an endless succession of celebrations focusing on the Black Madonna. A copy of the painting, blessed by the Pope, toured parishes throughout the country. Bishops proved adept at outwitting the state's bumbling prohibitions. When it banned the carrying of religious pictures, the clergy substituted an empty gold frame filled with flowers. This, of course, did nothing to deter religious devotion; it merely emphasized the state's alienation from the national religion and enabled citizens to practice a subtle defiance. Although leftist intellectuals had been suspicious of popular religious fervor, by the late 1970s many began to see the Church as an ally.

One is struck throughout by the emotional force of past events. The wave of protest in 1966 coincided with the celebration of a thousand years since the founding of the Polish state and church, along with the tenth anniversary of the 1956 wave. The newly elected Polish Pope wanted to visit his homeland for the feast of St. Stanislaus, victim of an oppressive monarch in the eleventh

century; fearing the subversive subtext, the Communist authorities delayed his visit, and so the Church simply postponed the official anniversary. In 1980, the strike at the Lenin Shipyard in Gdansk shifted beyond economic grievances — for which management had already offered concessions — when the Interfactory Strike Committee decided to erect a cross in memory of four strikers killed ten years before.

In sum, Solidarity was a novel combination of three elements. One was the concentrated strength of industrial workers, whose power to disrupt the economy could not be ignored by Communist rulers. Another was the symbolic power of Catholicism, which dramatized the divide between state and nation. A third was the intellectual and organizational activity of the secular left. Whereas Catholics, students, and workers had mobilized separately in 1966, 1968, and 1970 respectively, in 1980 they coalesced into a united front. Besides providing a convincing explanation for the emergence of Solidarity, this book makes a valuable contribution to our understanding of mobilization and contention within authoritarian states. The author's meticulous reconstruction of an organizational network, and her dynamic analysis of how it changed over time, will certainly inspire other researchers.

Heroic Efforts: the Emotional Culture of Search and Rescue Volunteers.

By Jennifer Lois. New York University Press. Cloth, \$60.00; paper, \$19.00.

Reviewer: KATHRYN J. LIVELY, *Dartmouth University*

The stated goal of Jennifer Lois's *Heroic Efforts: the Emotional Culture of Search and Rescue Volunteers* is to understand heroes' understanding of heroism. She distinguishes heroes from other risk takers or paid emergency workers as individuals who voluntarily place themselves at risk in order to help others.

In order to enrich her discussion of heroism and to link it to other sociological concerns, Lois informs her topic with broader discussions of identity, organizations, emotion, and gender. Indeed, like other classic ethnographies of emotion, the bulk of her analyses illustrate how organizations create emotional cultures which not only influence actors' feelings, but also their views of themselves. Because of their heroic status, group members were often suspicious of new comers whom they believed might be joining for reasons inconsistent with, if not antithetical to, their understanding of themselves as heroes. Because of her "complete member" status, Lois documents effectively the hurdles that new group members must face to join the group, let alone to move from the periphery to the core (chapter 2).

In order for a volunteer to become a full-fledged hero, he or she must internalize a set of norms: *consciousness*, *resources*, and *commitment* (chapter 3). Furthermore, as individuals internalize each norm, they must also illustrate a

shift from wanting to be a member for selfish reasons (i.e., public recognition, gaining mountaineering skills, or thrill seeking) to wanting to be a member for altruistic reasons (i.e., helping others or paying back the community, albeit anonymously). When striving members failed to uphold norms or engaged in selfish or otherwise non-heroic behaviors, they were pushed back to the group's periphery through both formal and informal sanctioning.

In later chapters, Lois's analyses turns to a more traditional study of emotion management/emotional labor, making the usual distinction between managing one's own (chapter 4) and others' (chapter 5) emotions. When detailing the former, she couches her discussion in terms of "edgework," or the work that individuals must do in order to extend the edge (or boundary) of their comfort zone, enabling them to engage in heroic acts. Unlike most studies of emotional labor that focus merely on interactions during a single transaction, Lois's analyses illustrate how volunteers experience, use, manage, and discharge emotions at various stages of an oftentimes lengthy rescue operation. Moreover, because of the greater gender balance in her study than typically found in studies of service workers, Lois fleshes out nuanced gender differences in emotion and emotional expression. She also reveals how even reportedly female-friendly organizations unintentionally fell back onto gendered stereotypes when interpreting and describing members' emotional reactions and behaviors. Furthermore, her distinction between "tight" emotional labor performed for victims and the "looser" type performed for victims' families reminds us that not all emotional labor is created equally or is equally easy to maintain.

While chapters 1-5 present a coherent whole, the substantive portion of the book closes with two brief chapters on the labeling of heroes by victims and victims' families in thank you letters and the emotional rewards of rescue work. While interesting in and of themselves both of these chapters seemed, in comparison to the rest of the text, out of order and slightly underdeveloped.

Overall, *Heroic Efforts* is an interesting study of the emotional culture of masculine organization that would be a welcome addition to an undergraduate class on emotion, organizations, identity or even social psychology more broadly. An ambitious study, *Heroic Efforts* cast a wide net and incorporated a number of core sociological concepts, drawing on the work of Goffman, Hochschild, Clark, and others. Unfortunately, however, although she provides an interesting introduction to a number of ideas, none are fully developed. Indeed, while always engaging from an empirical standpoint, the book lacks a compelling theoretical frame. While anyone teaching this book to undergraduates could undoubtedly enrich the plethora of interesting examples within with a good dose of symbolic interaction or any of its variants (i.e., affect control theory and or status expectations states), I would have liked to have seen this developed more by the author herself.

Perhaps even more valuable, however, than what Lois's analyses tells us about the culture of heroism, normative socialization within complex

organizations, and the gendered nature of emotional labor, *Heroic Efforts* is a heroic testament to the power of ethnography. From the opening pages, where the reader is invited to step into Lois's shoes when she was awakened pre-dawn and deliberates on whether to climb out of bed to rescue an errant hiker to all the moral dilemmas of what it means to be undercover, to break into an initially hostile environment, to learn a set of skills, to make friends with respondents, and to actually marry one, Lois reminds us with painstaking honesty both the dilemmas and rewards of fieldwork.

A Population History of the United States.

By Herbert S. Klein. Cambridge University Press, 2004. 316 pp. Cloth, \$65.00; paper, \$22.99.

Reviewer: DENNIS HODGSON, *Fairfield University*

In just 238 pages of text Herbert S. Klein, the Gouverneur Morris Professor of History at Columbia University, offers an overview of US demographic history from prehistory until today. In the Introduction Klein defines basic demographic measures for the nonspecialist reader, and describes the various demographic transitions that have transformed populations over the last several hundred years. The two chapters that follow are a highpoint of the volume as Klein presents a masterful survey of what is known about the demography of the Western Hemisphere from the arrival of the first humans through colonization by Europeans. Klein clarifies differences in how the Portuguese, Spanish and the British settled their New World colonies by examining their differing situations with respect to the availability of indigenous labor and the cost of imported European labor. He also uses this labor supply framework to explain where and when colonizing powers resorted to the use of African slaves.

Klein's treatment of the actual population history of the United States, Chapters 3 through 7, is a more perfunctory examination of mortality, fertility, migration, population growth and population distribution trends during five historic periods: 1776 to 1860, 1860 to 1914, 1914 to 1945, 1945 to 1980, and 1980 to 2003. In these chapters Klein's focus is narrowly quantitative, although he occasionally reviews competing explanations of particular trends, for example why fertility started to decline so early in the U.S. He also includes in each chapter a comparison of U.S. trends with those occurring in European societies. He makes no attempt to treat the contemporary debates and policy initiatives that are associated with the trends he describes. For instance, Klein documents the dramatic decline in immigration associated with passage of the National Quota Laws in the 1920s, but does not discuss the immigration restriction movement or the racist and eugenic fears that produced laws that overtly discriminated against Southern and Eastern Europeans. Similarly, when

describing fertility decline from 1860 to 1914 he discusses the possible increased use of contraception and abortion, but makes no mention of the contemporary legal initiatives (Comstock laws and state abortion laws) that were limiting access to these birth control methods. Of course, many readers will have the requisite knowledge to “fill-in” the missing history, but even Klein’s limited goal of charting U.S. population trends would seem to call for some treatment of contemporary reactions to population trends, especially those that produced policy initiatives aimed at altering them.

Admittedly there is a voluminous literature that narrowly focuses on accurately portraying U.S. population trends, and it has been over half a century since someone has attempted to summarize this body of work in a single volume. A one-volume overview of U.S. population trends would be an ideal main text for the courses in U.S. population history that are beginning to be offered, and would be a very useful ancillary text for many courses in which a general knowledge of U.S. population trends is useful background information. Additionally, research on U.S. demographic trends is a highly specialized affair and researchers tend to focus on a single demographic variable or a single time period. Reading a brief overview of U.S. trends would be an easy way for such specialists to become familiar with research on other demographic variables or other time periods, allowing them to better situate their work within a larger frame. That being said, I have to advise the reader that this particular one-volume overview of U.S. population trends contains more than a few errors of fact and interpretation. I hesitate to recommend it for the purposes mentioned above.

Consider Klein’s description of nineteenth century African American fertility trends. He begins by misreading one source’s rates of natural increase as crude birth rates, arriving at a profoundly incorrect assessment: “The relatively steady level of crude death rates for this population — which remained at around 30 per thousand resident population for the century — was matched by a very significant decline in the rates of reproduction, with the crude birth rate dropping from 22.7 to 14.0 in this same period.” In fact the African American crude birth rate began the century at 53.1, not 22.7, and ended it at 43.8, not 14. Klein then repeats the same mistake when reading a table from a second source to arrive at an incorrect depiction of nineteenth century racial fertility differentials: “Black fertility also declined faster than white fertility and remained below white fertility throughout this period.” African American fertility actually didn’t begin to decline until after 1880, much later than white fertility, and was considerably higher than white fertility, assessments that are clearly stated in the text of the source cited by Klein. Accuracy problems also plague Klein’s analysis of recent crude birth rate trends: “From 1980 to 2000, the crude birth rate dropped from 24 per thousand resident population to just 15 per thousand.” The actual crude birth rate in

1980 was 15.9, not 24. Klein's 38% drop in crude birth rates simply didn't happen, making his analysis of which groups were most responsible for it of doubtful relevance. Klein also incorrectly reports that while in the 1970s teenagers had the highest rates of births outside of marriage "by the end of the century, it was older women whose rate of illegitimacy was highest and rising." In 1999 78.6% of births to women aged 15-19 were to the unmarried, a considerably higher rate of illegitimacy than that of any other age group. There are also problems of interpretation. Klein claims that there has been "little change in the number of women going childless," with a rate that "has stayed relatively steady since 1960 at roughly 15% to 16% for women who have reached 44 years of age." His source actually shows a rapid decline in childlessness from 15.1% in 1960 to 8.8% in 1975 and then an increase back up to 16.5% by the year 1995, a trend line that is not "steady." Technical demographic measures are occasionally mishandled by Klein. He incorrectly defines life expectancy at birth as a modal age of death: "when demographers say that life expectancy of a given population is 45 years of age, it means that half the population born in, say, 1850 will survive to the age of 45 in 1895." Life expectancy at birth simply does not mean this. In a number of places (see the titles and descriptions of Graphs 7.3 and 7.4) Klein conflates the total fertility rate (a period rate) and children ever born (a cohort rate) in ways that make passages difficult to decipher: "the total fertility rates barely reached replacement and fluctuated between 2.0 and 2.1 children per women who had completed their fertility by the end of the century."

There are whole sections of this short book that are excellent and insightful. In addition to the first two chapters, I found Klein's treatment of twentieth century mortality trends to be especially good. He makes clear, for instance, that major twentieth century advances in the control over infectious disease largely occurred over the brief period between 1938 and 1952. Many, though, will be using this book as a reference work, a place to turn to when desiring a definitive description of U.S. population trends. The presence of factual inaccuracies and the imprecise use of demographic measures and terms greatly limit its value as a reference source.

Peacocks, Chameleons, Centaurs: Gay Suburbia and the Grammar of Social Identity.

By Wayne Brekhus. University of Chicago Press, 2003. 262 pp. Cloth, \$50.00; paper, \$20.00.

Reviewer: KRISTIN KENNEAVY, *University of North Carolina at Chapel Hill*

In *Peacocks, Chameleons, Centaurs*, Brekhus details the results of in-depth interviews conducted with gay men living in suburban areas. The main focus

of the book is on three ideal types of identity management strategies used by men who vary the density, duration, and dominance of their gayness. In later chapters, the identity grammars are applied to other demographic and interest groups in order to demonstrate the applicability of the theory to a wide range of settings.

The first of the strategies presented is the peacock, or gay lifestyle. Brekhus uses secondary data to describe these men, who choose to enact their gay identity with one hundred percent intensity, one hundred percent of the time (high density, high duration), typically in urban spaces. The rationale underlying the method of data collection is popular (and perhaps academic) culture's reliance on this potent and visible element of gay male culture as its only depiction of gay male life.

What Brekhus adds to the study of gay identity is his analysis of the subtler, less political and visible range of the spectrum. The chameleons, or commuters, are those gay men who literally move to a different locale, sometimes a local gay establishment, more often the nearby city, to enact their gay identity. This group of men values their adaptability and prefer to not only fit into a variety of settings but to excel at fitting in anywhere they choose to. This group is one hundred percent gay, fifteen percent of the time (high density, low duration).

In contrast to the first two groups, who differ in terms of the duration of their gay identity, Brekhus describes the centaur, or integrator, who refuses to privilege his gay identity over other relevant personal characteristics. This ideal type of gay man is what Brekhus would describe as fifteen percent gay, one hundred percent of the time (low density, high duration). The integrators feel it necessary to hide their gay identity nor feel that it is ever necessary to flaunt it. Rather, the various components of the self, such as gay, white, suburban, et cetera, are blended and not seen as being in competition with one another.

Another contribution to the literature is Brekhus's examination of how the ideal types view each other's strategies. Lifestylers regard the commuters and integrators as having sold out their true, core identity as gay men in favor of politically neutral, hetero-friendly ones. The commuters view the lifestylers as overly committed to one style of self-presentation and lacking adaptability. The integrators do not feel that either of the previous two groups have developed the maturity necessary to incorporate multiple selves simultaneously.

Interlaced with these fundamental cross-cultural differences are a number of fascinating observations about the ways these differences affect each group politically, economically, and geographically. Age, race, income, and relationship status are also taken into account as structural determinants of why gay men may be more likely to lay claim to one of the above identities. Brekhus is also quick to point out that these are, indeed, ideal types and that life-course transitions as well as personal complexity make it unlikely that any given person will fit perfectly into any given category.

My main criticism lies with Brekhus's extension of his gay male identity schema to other groups. Brekhus's application of the theory visible, ascribed characteristics such as race and gender is not as fully developed as it might be, especially when one thinks of the reception by others of stigmatized identities, as opposed to their presentation alone. I was not convinced that this identity management model is as well suited to these characteristics as it is to relatively more concealable ones, nor do I believe that an "avid birdwatcher" identity carried with it the same sorts of economic and social penalties that "woman" or "black" do. However, Brekhus does a fair job of anticipating the places where his theory lapses and attempts to explain away deviant cases by maintaining that even stigmatized, visible markers can be lifestyled, commuted, or integrated. On the whole, this book is an important step toward a richer account of gay male life and makes excellent points about the nature of identity presentation.

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Social Forces is issued quarterly: September, December, March, June.

Social Forces is published by the University of North Carolina Press for the Department of Sociology, University of North Carolina at Chapel Hill.

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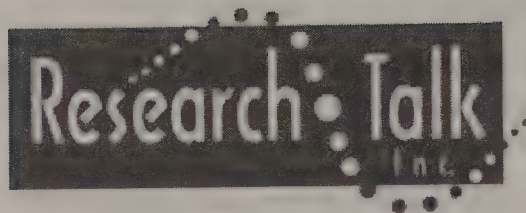
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Editor's Note

JUDITH BLAU, *University of North Carolina at Chapel Hill*

"Lively" is an understatement. Sociology is thriving, with new debates, broadened scope, new methodologies, and new questions. Of course it could not be otherwise. The world system is in the throes of reorganization and knowledge frameworks are being questioned, challenged, poked at, and probed. Normal social science continues, of course, and I feel it is the responsibility of *Social Forces* to continue to provide an outlet for outstanding normal social science as well as to provide an outlet for pioneering work even when that work is still underdeveloped.

Here I risk difficulties because I can lean too far one way or the other — in protecting normal science or providing an environment for pioneering or controversial work. I have dealt with this difficulty in the following ways. First, a section offered in each issue on Public Social Science will be bracketed and distinct from papers that are submitted through regular channels. Second, I will be on the lookout for papers that are submitted through regular channels that ought be a vehicle for a debate, and invite rejoinders to such papers if they are accepted.

This issue of the journal illustrates both approaches. In the first section there is a stunning piece by James Mahoney (the lead article), with an equally stunning rejoinder by Alan Sica. I expect that this debate involving philosophical ideas, rationality, formal theory, and historical methodology will generate more discussion and we are opening up a space for this discussion on our Web page (<http://socialforces.unc.edu>). James Mahoney's piece arrived over the transom and underwent the normal, grueling review that all submitted manuscripts undergo. He graciously agreed to the rejoinder. Both were anonymous until the last stage of the process, and the last I heard from the two of them was that they were clapping each other on the back, renewing ties of an earlier friendship, and sharpening their pencils for another round. Please go to our Web page to read Jim's reply to Alan and to join this conversation.

The last section of the journal has two solicited pieces on reparations and they illustrate a striking contrast in worlds of knowledge and understanding. Rhoda Howard-Hassmann considers reparations from the perspective of normal social science, specifically from a social movement perspective, whereas Rodney Coates does so from the perspective of social justice. These paired pieces have different epistemological foundations, and those who participate in the online discussion on our Web site should recognize that Howard-Hassmann is treating reparations

from a distinctively sociological perspective whereas Coates is deliberately blurring the lines between interpretation, criticism, and practice that W.E.B. Du Bois advocated doing. Please go to our Web site to join this conversation.

Besides these pieces, there are eleven outstanding articles in this issue: two on networks, four on mobilization and social movements; three on the military, and two on gender and equity for women. Please read these pieces understanding that the authors have all worked hard to communicate complex ideas and methodologies within given literatures and traditions while at the same time writing to reach a broader sociological audience.

It may be useful to mention a few editorial practices that I have introduced. Not all manuscripts that arrives is sent out for review. I have sought advice from the advisory board about diverting some papers to specialty journals, and, in particular, I am giving precedence to sociology pieces that relate to other social sciences and the core of sociology. I have turned back specialized papers in the areas of criminology, public health, and urban planning. Also, I occasionally reject pieces on the basis of a single extremely negative review when, having read the paper myself, agree with the reviewer.

We are launching a few e-publications. Some of these will be articles, and they will be archived with JSTOR and Project Muse and are therefore indexed in many of the abstracting services that *Social Forces* normally uses, such as *Sociological Abstracts*. Others will be public sociology pieces — fresh, new, provocative — but without having gone through the lengthy reviewing process. Two such pieces are currently on our Web page, both from the annual meeting of the American Sociological Association: “Towards a Typology of Civil Courage among Public Intellectuals” by Barbara Misztal and “Public Sociologies and Human Rights: Finding Common Ground” by Mary Robinson, Former United Nations High Commissioner of Human Rights and Former President of Ireland. Again, we might reflect on the blurring the lines between interpretation, criticism, and practice.

It is with sadness to report that we are losing our managing editor, Paul Mihas. Paul has been our master chef, head designer, engineer, and psychiatrist all rolled up into one. He has worked under constant deadlines from me, Andy Perrin, UNC Press, and our printers, while tactfully keeping authors to their own deadlines.

Finally, we believe you will enjoy this issue of the Journal, and also the entries in our Web site.

Revisiting General Theory in Historical Sociology*

JAMES MAHONEY, *Brown University*

Abstract

This article revisits the debate over general theory in historical sociology with the goal of clarifying the use of this kind of theory in empirical research. General theories are defined as postulates about causal agents and causal mechanisms that are linked to empirical analysis through bridging assumptions. These theories can contribute to substantive knowledge by helping analysts derive new hypotheses, integrate existing findings, and explain historical outcomes. To illustrate these applications, the article considers five different general theories that have guided or could guide historical sociology: functionalist, rational choice, power, neo-Darwinian, and cultural theories. A key conclusion that emerges is that scholars must evaluate both the overall merits of general theory and the individual merits of specific general theories.

The role of general theory in the field of historical sociology has been the subject of a long and heated debate.¹ Although one would not necessarily expect this debate to have produced consensus on the merits of general theories, one might hope it would have “clear[ed] up enough confusion for practitioners to decide where to place their bets” (Gould 2005). Yet, this does not appear to have taken place. The debate has failed to yield a single, intelligible definition of “general theory,” much less a solid understanding of the ways in which general theories are intended to contribute to substantive research.

The goal of this article is to clarify the use of this kind of theory for empirical research in historical sociology. Three arguments are advanced. First, I argue that

* For helpful comments and advice (not all of it heeded), I thank Julia Adams, Gerard Alexander, Jennifer Darrah, Rosemary L. Hopcroft, Aaron Katz, Edgar Kiser, Matthew Lange, Madeline Otis, Dietrich Rueschemeyer, Daniel Schensul, Matthias vom Hau, David Waldner, Joseph M. Whitmeyer, and the anonymous reviewers. This research is supported by the National Science Foundation under Grant No. 0093754. Direct correspondence to James Mahoney, Department of Sociology, Box 1916, Brown University, Providence, RI 02912. E-mail: James_Mahoney@brown.edu.

general theories are postulates about foundational causes. More specifically, general theories identify particular “causal agents” (i.e., basic units of analysis) and particular “causal mechanisms” (i.e., abstract properties of causal agents that produce outcomes and associations). Causal agents and causal mechanisms together constitute the “hard core” of general theories (Lakatos 1978).

Second, I argue that general theories can yield three types of empirical contributions: the derivation of hypotheses, the integration of research findings, and the explanation of outcomes. In conjunction with these contributions, general theories help analysts avoid the problems that arise when a theory fails to specify the ultimate reasons why a given association or outcome exists. General theories overcome these problems by attributing final causation to an abstract mechanism that lacks specific temporal and spatial content.

Third, I argue that three general theories — functionalist, rational choice, and power theories — currently inform research in historical sociology, and that two additional theories — neo-Darwinian and cultural theories — potentially could be recast as general theories for historical sociology. These theories are built around different causal agents and causal mechanisms, and these differences in turn shape their capacity to contribute empirical insights.

The debate over general theory in historical sociology has been one of the most important efforts by sociologists to discuss the role of scientific theory in their research. At the same time, however, the polemical nature of the debate has not always been helpful. This article seeks to offer a more dispassionate analysis of general theory. Above all else, it seeks to encourage scholars to be clear about the meaning and intended empirical purposes of general theory before they outright dismiss this mode of analysis or suggest that one particular general theory should guide all sociological investigation.

What Is General Theory?

A lack of consensus concerning the meaning of general theory has characterized the debate over general theory. Initially, as Somers (1998:748) points out, Kiser and Hechter (1991) did not formally define general theory, despite their view that such theories are essential to cumulative research programs. As a result, the critiques of their argument tended to assume that a general theory constitutes a set of nomothetic or law-like statements that apply to all times and places (e.g., Boudon 1998:818; Paige 1999:784; Quadagno & Knapp 1992:491, 495-96; Skocpol 1994:322-25). Not surprisingly, critics dismissed the potential of general theory, and rational choice theory in particular, given the inability of historical sociologists to identify interesting causal propositions that hold true across broad spatial and temporal domains.

The exchange was sometimes unproductive because it too often assumed that general theories are “general” by virtue of their universal application (see Goldstone

1998). In fact, a given general theory may not be appropriate for all research questions, and the hypotheses derived from a general theory may be probabilistic and apply to only a limited range of cases defined by scope conditions. Rather than universal application, the aspect of a general theory that is general is its use of an abstract causal mechanism that exists outside space and time. In a reply to Somers, Kiser and Hechter (1998:794-95) cleared up some of this confusion by defining general theories as follows: "General theories constitute paradigms that can lead to research programs. They consist of explicit assumptions about causal relations, mechanisms, abstract models, and conditions delimiting the scope of such assumptions" (see also Kiser 1996). While useful, this definition is still vague about the meaning of key ideas such as "causal relations," "abstract models," and "mechanisms." In what follows, I propose an alternative definition intended to be more precise and more parsimonious.

A DEFINITION OF GENERAL THEORY

A general theory is a postulate about a foundational cause that features two components: a causal agent and a causal mechanism. First, the causal agent is the basic unit of analysis and the entity whose properties ultimately explain outcomes and associations. In rational choice theory, for example, the causal agent is the individual. Other general theories posit alternative causal agents, at both lower levels of analysis (e.g., the gene in neo-Darwinian theory) and higher levels of analysis (e.g., the social system in functionalism). The causal agent of a general theory is not an irreducible entity; rather, it is a compound of other entities at lower levels of analysis. However, a causal agent corresponds to that level of analysis at which a specific causal mechanism is operative. For example, the causal mechanism of functionalism is assumed to be operative at the system level, not at lower levels of analysis where the entities that constitute the system exist.

Second, a general theory identifies a property of the causal agent — what I call a "causal mechanism" — that produces effects. A causal mechanism is the particular feature of the causal agent that actually brings about outcomes and associations. These mechanisms are empirically underspecified, exist outside specific spatial and temporal boundaries, and cannot be directly observed. Nevertheless, in a general theory, causal mechanisms are treated as ontologically primitive causes of outcomes and associations; they are original movers or "ultimate causes." For example, instrumental rationality — the causal mechanism of rational choice theory — is an unobservable property devoid of precise empirical content and specific time/place referents. Yet, in rational choice theory, this property is understood to be the ultimate cause of many outcomes and associations in the world. The positing of omnitemporal and unobserved mechanisms that serve as primitive causes has been discussed primarily in the natural sciences (Bhaskar 1975; Churchland & Hooker 1985; Hacking 1983; Harré 1970; Hempel 1965, 1966; McMullin 1984), but the

same practice applies to the social sciences (Bhaskar 1979; Hedström & Swedberg 1998).

Taken together, a causal agent and a causal mechanism represent the hard core of a general theory, or that part of the theory that is shared by all scholars who use it (Lakatos 1978). This hard core is not usually directly tested, and it is questioned primarily when the theory consistently fails to contribute to empirical research.

General theories contrast with other kinds of theory in historical sociology, including sets of testable hypotheses, research orientations, and general concepts. For example, one may have a theory about the variables that affect some outcome, but this does not mean that one has a general theory, given that a general theory is not itself a testable hypothesis. Likewise, research orientations such as conflict theory or state-centric theory entail a series of propositions about important causal factors in the world, but they do not specify causal agents and primitive mechanisms like a general theory. Finally, general concepts such as “habitus” (Bourdieu 1980) or “communicative action” (Habermas 1984) help us think about and understand various facets of the social world, but they too do not posit a primitive cause of outcomes.

Nor should particular methods of hypothesis testing be conflated with general theories. Rather, the methods used to test the hypotheses generated by general theories are diverse, ranging from multivariate statistics to small-*N* comparative methods to narrative presentations. The relative strengths and weaknesses of these methods raise separate issues unrelated to the defining features of general theory.

In sum, general theories propose that certain basic entities and mechanisms produce social reality. These theories are concerned with the fundamental ontology of our world (i.e., what entities and mechanisms really exist), and they seek to locate ultimate causes, the identification of which should be a central goal of any theoretical science (Jasso 1988).

EXAMPLES OF GENERAL THEORIES

In the field of historical sociology, analysts have used or could use at least five general theories: functionalist, rational choice, power, neo-Darwinian, and cultural theories. These theories differ with respect to the causal agents and causal mechanisms that comprise their core assumptions (see Table 1).

In functionalist theory, the causal agent is the social system and the causal mechanism is the “needs” or “functional requisites” of that system (e.g., Aberle et al. 1950). Functionalism is built around the assumptions that social systems really exist, that these systems have unobservable requisites (e.g., equilibrium) that must be met for their survival, and that those requisites are an ultimate cause in the social world. Functionalism is a macro theory in that it attributes final causation to system-level attributes.

By contrast, rational choice theory is a micro-level theory. It assumes that individuals are the basic agents and that the instrumental rationality of these

TABLE 1: Typology of General Theories

	Functionalist Theory	Rational Choice Theory	Power Theory	Neo- Darwinian Theory	Cultural Theory
Causal Agent	Social System	Individual	Collective Actor	Gene	Collectivity
Causal Mechanism	Needs/ Requisites	Instrumental Rationality	Resources	Contribution to Fitness	Semiotic Practices

individuals is the causal mechanism that produces events and social regularities. Instrumental rationality is an unobservable cognitive trait defined above all as the process by which the optimization of interests is achieved (Abell 1992; Coleman & Fararo 1992; Kiser & Hechter 1991). That is, individuals evaluate behavioral options in light of their costs and benefits, and they pursue the option that maximizes the differences between benefits and costs. The approach therefore holds that individuals are purposive and goal-oriented actors. Beyond this, however, rational choice theory does not directly identify the content of any individual interests, choice options, or potential pay-offs.

Power theory works at a meso-level. It assumes that collective actors (e.g., social groups and organizations) are the key causal agents and that the resources that define these actors are the ultimate causes of outcomes and associations. Resources are potentially unobservable bundles of ideas and materials that provide collective actors with both the motivation to carry out certain kinds of behavior and the capacity to shape particular outcomes. Although power theory has been implicitly used in a number of studies in historical sociology, it has not been developed in any formal way. Hence, we must flesh it out below before we can evaluate its uses in historical sociology.

Finally, neo-Darwinian theory and cultural theory are two important research orientations that could be recast as general theories for historical sociology. Neo-Darwinian theory is radically micro in that it treats genes as causal agents, and it assumes that the past contribution of these genes to human fitness is the key causal mechanism. Cultural theory works at both the meso and macro levels, given that its causal agent — the collectivity — refers to groups of varying sizes. A general cultural theory is built around the specific claim that the semiotic practices (i.e., systems of meaning and associated practices) of collectivities are the key causal mechanism. Because neo-Darwinian and cultural theories have not been explicitly used as general theories in historical sociology, they too must be fleshed out below.

General Theories and Empirical Research

One could explore the use of general theories by focusing on their normative implications. For example, scholars who believe that rational choice theory encourages self-regarding behavior might criticize the theory on these grounds. However, the normative entailments of general theories are rarely straightforward,² and too much concern with normative criteria can obscure the empirical assessment of general theories. While scholars must be accountable for both the empirical and normative implications of their general theories, separate debates can and should be held over these issues.

In this article, I focus on the use of general theory for empirical science. I discuss three specific strategies through which general theories can be employed in empirical analysis: deriving testable propositions, integrating existing findings, and explaining outcomes. Before considering these strategies, however, it is helpful to examine how general theory is intended to improve on other kinds of research.

AVOIDING THE BLACK BOX PROBLEM

Research oriented toward causal analysis that does not employ a general theory almost inevitably suffers from the “black box problem” (Hedström & Swedberg 1998; Goldthorpe 1997; see also Hume [1748] 1988). This problem refers to the difficulty of explaining *why* a given causal variable exerts an effect on a given outcome variable. For example, while statistical methods can estimate the average net effects of independent variables, they do not themselves locate the reasons why the independent variables have the effects they do. These reasons are left as an unopened black box.

The “problem” here is twofold. First, because researchers cannot meaningfully identify the connection between cause and effect, they are left uncertain whether a given association reflects true causation or whether the association is simply the spurious product of an unknown antecedent variable. The black box problem thus is linked to the selectivity and omitted variable biases that plague social research (Lieberson 1985).

Second, while researchers often discover that a heterogeneous group of independent variables are associated with an outcome, they lack tools for understanding why such diverse factors are related to the phenomenon. The result is an absence of theoretical integration, which in turn fragments social science knowledge (Dessler 1991; Sørensen 1998).

Researchers usually respond to the black box problem by speculating about the reasons why a given association should exist, perhaps drawing on established research orientations and general concepts. Sometimes they may attempt to identify intervening variables that link a cause and an effect through statistical procedures (e.g., structural equation and path models) or qualitative techniques (e.g., process tracing and narrative analysis). However, unless a general theory is actually used,

these strategies will not fully resolve the black box problem. Rather, they will end up explaining an association between variables by appealing to another association between variables; the new association itself will contain a black box and require a separate explanation. Without the identification of a mechanism, then, the analyst will be forced into an infinite regress as he or she pursues deeper and deeper intervening variables (King, Keohane & Verba 1994:86; McMullin 1984:206).

General theories provide a potential solution to the black box problem. If an empirical association or outcome can be derived from a general theory, one has reason to believe that the causal mechanism of the general theory explains the existence of the association or outcome. This is true because the postulates used to deduce the predicted association or outcome — which include an appeal to what is viewed as an ultimate cause — carry the explanation of why the association or outcome logically and necessarily must exist. Indeed, the fact that the causal mechanism exists outside time and space is precisely why it can serve as a transcendent cause that fills all black boxes rather than as simply an intervening variable that leaves behind temporal gaps (for an opposing view, see Somers 1998).

General theories can yield benefits besides overcoming the black box problem. For example, they force analysts to be explicit about underlying assumptions that otherwise might remain implicit and hidden. They also allow work across diverse substantive domains to be linked in a common research program that is united by concern with a single causal mechanism (cf. Kiser & Hechter 1998). Furthermore, general theories can be a source of new hypotheses and new puzzles, thereby stimulating empirical research agendas (Burawoy 1989; Kiser & Hechter 1991; Paige 1999). Indeed, general theories often show how findings that initially seem inconsistent with a given causal mechanism can in fact be explained by that causal mechanism (e.g., rational choice theorists often explain collectively irrational outcomes). Nevertheless, when compared to research that does not employ a general theory, the most distinctive virtue of research that employs a general theory is probably avoidance of the black box problem (see also Boudon 1998:18).

HYPOTHESIS DERIVATION, KNOWLEDGE INTEGRATION, AND OUTCOME EXPLANATION

Three empirical strategies are used in conjunction with general theories to avoid the black box problem: the derivation of testable hypotheses, the integration of existing associational findings, and the explanation of historical outcomes (see Table 2). All three strategies are built around the deduction of propositions from postulates (see Jasso 1988; cf. Hempel 1965, Homans 1967, Popper 1972). *Propositions* are testable hypotheses and predictions about the occurrence of outcomes. They are the deduced consequences of postulates, representing the conclusion of a logical chain of reasoning. By contrast, *postulates* are assertions about conditions in the world and the logical relationships that govern these conditions. In historical sociology, postulates are often inductively formulated

though case-oriented research, including research that relies on the various kinds of non-general theory discussed above. The logical relationships that govern postulates may be quite varied, ranging from non-deterministic probability functions to claims about necessary and/or sufficient connections (Fararo 1989:17-22). Taken together, postulates and propositions follow the rules of a syllogism: if the postulates are true, the proposition must also be true. More specifically, if the postulates are true, they are jointly sufficient for the truth of the proposition.

When a general theory is used, the starting postulate assumes a given causal agent and mechanism. Since the causal mechanism refers to an abstract property, subsequent postulates are “bridging assumptions” that add empirical content to this mechanism (Hempel 1966:72-82; Kelle & Ludemann 1998; Morton 1999). Additional postulates also specify conditions in the world that work in conjunction with the mechanism. Overall, the analyst moves from postulates of a high level of abstraction (i.e., a causal mechanism) to postulates of a concrete level of abstraction (i.e., an empirical proposition) (see Lindenberg [1992] on the “method of decreasing abstraction”). In a research program, certain postulates may become commonplace (e.g., wealth maximizing and egoistic assumptions in rational choice theory). In this sense, scholars do not necessarily have to start from scratch in their model construction but can sometimes rely on the postulate formulations of previous researchers. Even so, however, analysts must still draw heavily on their specialized knowledge about a given research topic to formulate many of the more concrete postulates needed to effectively deduce propositions.

Hypothesis derivation entails the use of untested postulates to derive testable hypotheses about associations between variables. As Jasso (1988:19) puts it, “Test the predictions [i.e., propositions], never the postulates.” With this strategy, scholars employ Occam’s razor by using as few postulates as possible to generate as many testable propositions as possible. The postulates themselves are judged based on their capacity to yield empirically supported hypotheses, especially hypotheses that fill gaps in knowledge, solve empirical problems, or are counterintuitive (Cohen 1989; Laudan 1996; Popper 1959).

Hypotheses derived from postulates can be false for two reasons. First, the analyst may have violated a logical rule in the process of reasoning from postulates to proposition. When this happens, the truth of the postulates is not sufficient for the truth of the hypotheses; a logical fallacy has occurred. Hypothesis derivers must therefore be concerned with checking “the postulates for logical consistency, doing whatever repair is necessary in order to achieve internal coherence” (Jasso 1988:9). Second, one or more of the postulates — including an initial postulate about a general theory’s causal mechanism — may be false. Even if a testable proposition is derived in a logically valid manner, we have no reason to believe it will be true if the assumptions from which it was derived are not true.³ Thus, when a hypothesis derived from a general theory is not empirically supported, the analyst must review whether the problem is a breakdown in deductive reasoning or the falsity of a

TABLE 2: Hypothesis Derivation, Knowledge Integration, and Outcome Explanation

A. Hypothesis Derivation

Assumptions that are not tested.	$\left\{ \begin{array}{l} \textit{Postulate 1 (Causal Mechanism)} \\ \textit{Postulate 2} \\ \textit{Postulate n} \end{array} \right.$
Hypotheses that are tested.	$\left\{ \begin{array}{l} \textit{Proposition 1} \\ \textit{Proposition 2} \\ \textit{Proposition n} \end{array} \right.$

B. Knowledge Integration

Assumptions that are not tested.	$\left\{ \begin{array}{l} \textit{Postulate 1 (Causal Mechanism)} \\ \textit{Postulate 2} \\ \textit{Postulate n} \end{array} \right.$
Hypotheses that were previously tested.	$\left\{ \begin{array}{l} \textit{Proposition 1} \\ \textit{Proposition 2} \\ \textit{Proposition n} \end{array} \right.$

C. Outcome Explanation

Assumptions that are tested.	$\left\{ \begin{array}{l} \textit{Postulate 1 (Causal Mechanism)} \\ \textit{Postulate 2} \\ \textit{Postulate n} \end{array} \right.$
A historical outcome.	$\left\{ \textit{Proposition 1} \right.$

secondary postulate. If neither condition seems to apply, doubt is cast upon the causal mechanism of the general theory.⁴

Knowledge integration works backward from an existing set of hypotheses that have already been tested and empirically supported to a set of postulates (Hempel 1966:70). Theorists who use this strategy try to illustrate how diverse associations can all be viewed as the product of the same basic causal mechanism.

Knowledge integration helps overcome the fragmentation that arises when researchers discover that a wide range of independent variables are associated with a particular outcome. The strategy shows how the associations are the product of a single causal mechanism, thereby supplementing empirical research that begins without the aid of a general theory. However, when compared to hypothesis deriving, the exercise of knowledge integration provides less convincing support for the

existence of a causal mechanism, given that the validity of the hypotheses is already known (Abell 1994; Cohen 1989; Hage 1994).

Finally, *outcome explanation* refers to the theoretical practice of logically deducing outcomes — rather than testable hypotheses — from a set of postulates. Outcomes can be either particular events that occur at specific times and places (e.g., the French Revolution) or classes of events of which particular cases are examples (e.g., social revolutions in agrarian monarchies). For either kind of outcome, the analyst does *not* test the outcome that comprises the final proposition, since this is simply a descriptive referent for one or more historical cases.⁵ Rather, the analyst seeks to test as many as possible of the postulates other than the causal mechanism used to logically deduce the outcome. The strategy of outcome explaining is thus fundamentally different from the strategies discussed above; in particular, outcome explaining violates the maxim “test the predictions, never the postulates.”

In some respects, the strategy of outcome explaining is best suited for the field of historical sociology. For one thing, the formulation of the testable postulates used to deduce a historical outcome may allow researchers to take advantage of their case expertise to a greater degree than with the other strategies, where postulates are not tested. Moreover, historical sociologists are often more interested in explaining outcomes (e.g., welfare policies, political regimes, and revolutions) than in integrating pre-existing knowledge or deriving new hypotheses, though they typically value these other contributions and may use them in conjunction with outcome explanation (e.g., as in the Brustein example below). If their goal was primarily hypothesis deriving, they would not need to study past events for which it is difficult to gather data and test associations (Goldthorpe 1991). For its part, knowledge integration is the activity of theorists who work in an area marked by a plentitude of existing correlational/associational findings that require theoretical explanation. At this stage, most areas of historical sociology have not generated enough correlational/associational findings to require knowledge integration.

Functionalist and Rational Choice Theories

Functionalism and rational choice analysis are widely considered to be two examples of general theories.⁶ However, previous discussions of these theories have not been explicit about how analysts use them with the strategies elaborated above.

FUNCTIONALIST THEORY

Traditionally, many functionalist studies in the field of historical sociology sought to explain the existence of social structures and institutions found widely across past and present societies, such as religion, government, and stratification (e.g., Davis 1959; Davis & Moore 1945; Levy 1952). In addition, they often were

concerned with explaining outcomes such as the presence of crime, violence, and suicide that appeared anomalous given common bridging assumptions that specified system needs in terms of stability or equilibrium. At worst, these outcome explaining studies simply asserted that a given social institution was functional for society, never going beyond an ad hoc account of the reasons why. At best, they would posit the causal mechanism of functionalist theory (i.e., social systems have functional needs) and then specify particular system needs, building toward the outcome of interest. All of this was done quite informally and loosely, making it difficult to evaluate the internal logic of many functionalist accounts.

In more recent periods, functionalism has appeared in structural Marxist frameworks, including qualitative strands of world systems theory. In these works, a capitalist mode of production is treated as a system with coherent reproductive needs, and it is argued that these needs in turn call forth human behavior and major world events. Again, much attention is devoted to seemingly anomalous outcomes. For example, while the creation of welfare states might seem to contradict the needs of a capitalist system, Poulantzas (1968) argues that in fact welfare provision enhances the long-term viability of capitalism. Likewise, while the French Revolution might seem to threaten stability in the world system, Wallerstein (1989) explains this event in terms of its stabilizing role through the promotion of bourgeois values.

Although functionalism has sustained research programs, thoughtful analysts argue that it has not produced compelling explanations of outcomes or derived interesting and empirically confirmed propositions (see Turner & Maryanski 1979). In part, the problem is simply that its practitioners do not formally specify their postulates and the lines of reasoning they use to deduce propositions. More fundamentally, the testable aspects of functionalist arguments often appear to be false. For example, upon empirical scrutiny, traditional functionalist studies are often criticized as offering false premises (e.g., Cullen & Novick 1979; Stinchcombe & Harris 1969; Tumin 1953). Likewise, critics of structural Marxism and world systems theory present powerful empirical evidence to show that their respective postulates about dominant class control of the state and the marginal role domestic class struggle are unsustainable (e.g., Brenner 1977; Skocpol 1977). In this sense, the rejection of functionalism by many contemporary sociologists is at least implicitly grounded in the belief that this research tradition has not produced important or valid empirical insights through the use of the strategies described here.

RATIONAL CHOICE THEORY

Rational choice theory has been at the center of the debate over general theory in historical sociology. Advocates assert that it is currently the only viable general theory for the social sciences (e.g., Abell 1992; Kiser & Hechter 1998; Wallerstein 2001), and critics respond that it contributes little or nothing (e.g., Green & Shapiro

1994; Somers 1998). What this debate lacks, however, is an explicit discussion of the three strategies through which general theories can make empirical contributions. Thus, while rational choice theorists have discussed their common bridging assumptions (Friedman and Hechter 1988), they have not clearly noted the different strategies with which these bridging assumptions can be used. To explore this issue, it is helpful to consider two different applications of rational choice theory.

William Brustein's *The Logic of Evil: The Social Origins of the Nazi Party, 1925-1933* (1996) is an outcome explaining study that also pursues hypothesis derivation to empirically validate untestable postulates. Brustein is centrally concerned with explaining the rise of the Nazi Party in Germany. Since this party became the nation's strongest during elections in July 1932 (though Hitler did not win these elections), Brustein needs to explain why more individuals chose to vote for the Nazis than any other party. The outcome is nicely suited for his purposes because it appears counterintuitive vis-à-vis rational choice analysis: Why would large numbers of rational voters choose the Nazis?

To answer, Brustein begins by assuming that: (1) German voters are rational individuals, and (2) economic interests significantly — if not entirely — define voter preferences vis-à-vis the alternative parties. He then postulates that, among the various Weimar parties, the Nazi Party's positions offer the greatest material pay-off to the greatest number of individuals. It follows that the Nazi Party receives more votes than any other party (see Table 3a).

This argument appears to be logically valid, but one must question whether its premises are true, especially postulates 1 and 2. These postulates are controversial because a large body of literature suggests that anti-Semitism and emotionally-driven fears motivated German voters. In these formulations, voters are not viewed as rational, and their interests are not understood in material terms.

Brustein's strategy for testing postulates 1 and 2 is to use them in the derivation of other hypotheses that can be more directly tested. Thus, by taking his initial postulates as a starting point, he adds the assumption that the class position of individuals shapes their economic interests (see Table 3b). This leads to a new testable proposition: Germans tend to vote for the party that best serves the class to which they belong.

Much of the book is an effort to test this proposition, under the assumption that support for this hypothesis lends plausibility to the postulates from which it is derived, which in turn supports the overall argument about the Nazi electoral victory. In other words, support for this hypothesis adds credence to the idea that Germans are instrumentally rational voters and material interests define their preferences, the two key untestable postulates in Brustein's central argument.

Although Brustein uses rational choice theory to develop his key orienting hypothesis, he further specifies the hypothesis without the use of any general theory. In particular, he employs historical narrative to locate specific classes and estimate the extent to which they will benefit from particular parties. For example, his

TABLE 3: Summary of Brustein's Arguments**A. The Central Argument: Outcome Explanation**

<i>Postulate 1a:</i>	German voters are rational.
<i>Postulate 2a:</i>	Economic interests define the core preferences of German voters.
<i>Postulate 3a:</i>	Of the Weimar parties, the Nazi Party's policies are the most economically beneficial to the greatest number of voters.
<i>Proposition 1a:</i>	Germans will vote for the Nazi Party more than any other party.

B. Argument with Testable Proposition: Hypothesis Derivation

<i>Postulate 1b:</i>	German voters are rational.
<i>Postulate 2b:</i>	Economic interests define the core preferences of German voters.
<i>Postulate 3b:</i>	The class position of German voters determines their economic interests.
<i>Proposition 1b:</i>	Germans will vote for the party that best serves their class.

narrative suggests that the Weimar tariff policy was especially damaging to dairy and livestock farmers; individuals of these classes stood to benefit economically from the Nazi's agrarian reform program. By contrast, grain producers were protected under Weimar arrangements, and thus stood to benefit from policies and parties that would maintain the status quo. He supports the specific hypotheses that emerge from the narrative with a statistical analysis that shows that class membership is generally associated with votes for and participation in the Nazi movement in the predicted ways. In the end, Brustein argues that the Nazis won the elections because most classes — and most individuals — stood to benefit from the Nazi policies more than those of any other party.

A second recent work of historical sociology — Gerard Alexander's *The Sources of Democratic Consolidation* (2002) — primarily pursues the hypothesis deriving strategy. In particular, Alexander formulates a general proposition about the conditions under which democratic consolidation will occur: democratic consolidation occurs only when conservatives see the left as reliably moderate. As Table 4 shows, Alexander arrives at this proposition by assuming the causal mechanism of rational choice theory and then formulating a series of bridging assumptions. Many of these bridging assumptions are inductively generated through a rich analysis of political development in Spain before and after the Civil War, in France and Britain before World War I, and in France, Britain, Germany, and Italy in the inter-war period and after World War II.

Since this is a hypothesis deriving study, the main burdens on Alexander are to: (1) demonstrate that the hypothesis follows logically from the postulates; and (2) show that the hypothesis is empirically supported. Although Alexander does

not use formal notation, it appears that his hypothesis does follow logically from the postulates. Assuming this to be the case, the burden of proof becomes one of actually testing the proposition and convincing readers that it is true.

Alexander does this by gathering information on conservatives' views of the left (from interviews, newspapers, diaries, letters, public statements, and memoirs) and then correlating these views with conservatives' commitment to democracy and to actual democratic stability. For example, conservatives are understood to perceive the left as moderate when conservatives believe it is highly unlikely that the left will initiate violence or carry out extremely hostile economic policies. Conservatives show a commitment to democracy when they forego the opportunity to maintain access to instruments that could be used to overthrow democracy. Although the test is limited to a small number of cases, Alexander's comparative-historical analysis is persuasively presented. In addition, he offers insights for testing his key proposition using a broader range of countries.

These studies by Brustein and Alexander illustrate how rational choice theorists use general theory to make empirical contributions in the field of historical sociology. Though focused on different substantive issues, the books clearly speak to one another: Brustein and Alexander have the same "first principles" grounded in the assumption that instrumentally rational individuals are the final movers of events. In this sense, they join other prominent rational choice analysts such as Robert Bates, Michael Hechter, Edgar Kiser, Margaret Levi, and Barry Weingast in a common research project (see esp. Bates et al. 1998).

As a final note, however, it is worth emphasizing that even many advocates of rational choice theory recognize its limitations as a general theory. For one thing, there are a series of well-known practical difficulties formulating rational choice models in complex social settings (see Munck 2001 for a review). Moreover, the universality of instrumental rationality has been questioned, suggesting that the theory also has important "ontological" scope limitations. In particular, the work of cognitive psychologists (e.g., Halpern & Stern 1998) and sympathetic skeptics (e.g., Elster 1989) has led many rational choice analysts to conclude that instrumental rationality is a subset of human decision making that applies in some domains but not others. For example, assumptions about instrumental rationality often break down in environments that promote emotional, impulsive, or habitual behavior (Kiser & Hechter 1998:800). Likewise, when individuals face real uncertainty about potential options and their consequences, the "rational choice" may be to pursue rigid behavioral rules rather than to attempt to optimize interests (Heiner 1983). In short, the scope of rational choice theory is limited by practical modeling issues and by the fact that the core ontological assumption of rational choice theory is not universally applicable.

TABLE 4: Stylized Summary of Alexander's Hypothesis Derivation

<i>Postulate 1.</i>	Individuals are rational.
<i>Postulate 2.</i>	When a democratic regime is present, individuals can "commit to democracy" or "not commit to democracy."
<i>Postulate 3.</i>	Individuals with conservative preferences (i.e., conservatives) above all seek to ensure their well-being and safety.
<i>Postulate 4.</i>	A commitment to democracy by conservatives is a necessary condition for democratic consolidation.
<i>Postulate 5.</i>	Conservatives make predictions about their well-being and safety under democracy in light of assessments of the likely political behavior of individuals with leftist preferences (i.e., the left).
<i>Postulate 6.</i>	If conservatives see the left as reliably moderate, they conclude that their well-being and safety will be securely protected under a democracy.
<i>Proposition 1:</i>	Democratic consolidation occurs only when conservatives see the left as reliably moderate.

Power Theory

Historical sociologists from several different traditions invoke the concept of power in their work. For example, functionalists sometimes view power as a requisite that systems need to achieve, and rational choice analysts occasionally explain an individual's power by drawing on the distribution of preferences within a population (Coleman 1990:133). Here, however, I focus on those historical sociologists who treat power as the foundational cause of outcomes. For these scholars, resources constitute collective actors with enduring identities, capacities, and motivations, and these actors in turn drive events in history.

FORMAL SPECIFICATION

The causal agents of power theory are collective actors, or aggregations of individuals who engage in relatively coordinated behavior, such as states, classes, movements, and organizations. Collective actors control specific kinds of resources that empower their action. The resources can be material in nature (e.g., technological artifacts and large numbers of human beings) or ideational in nature (e.g., prestige and information). Resources constitute collective actors in the sense that they literally are defining parts of these actors. For example, a defining feature of a state is its near monopoly over the use of force within a territory, and nearly any definition of a class actor treats control over economic resources as a constitutive dimension.

The power of a collective actor corresponds with the extent of resources that the actor mobilizes to exert effects. Powerful actors are precisely those who exercise their capacity to exert important effects; actors who are not powerful do not marshal

capacity to shape outcomes in important ways. One therefore observes power through the *exercise* of ability, not simply through the presence of latent ability. This conceptualization of power is consistent with the physical sciences, where power is defined as work accomplished (or energy emitted) per unit of time (Blalock 1989).⁷

Power theory focuses centrally on conflict between collective actors. The theory assumes that collective actors usually cannot shape outcomes without obstruction. Rather, outcomes emerge from the conflict of multiple actors motivated to pursue competing ends. At the same time, power theory does not necessarily assume that one actor exercises domination over another; rather, differences among actors in level of power reflect differential contributions to outcomes. In this sense, power theory is consistent with feminist writings that focus on an actor's "power to" accomplish an end rather than an actor's "power over" another actor (see Hartsock 1983:224; Morriss 2002:32-35). Whereas frameworks that look at "power over" are helpful for understanding zero-sum domination, frameworks that emphasize "power to" are more suitable for analyzing events characterized by mixtures of positive-sum and zero-sum relations, as is true of many outcomes in historical sociology. In the case of power theory, the focus is specifically on the extent to which actors exercise their "power to" in actual practice.

For the purpose of formalization, we can treat power like linear momentum in the physical world and disaggregate it into two components: capacity and emanation. *Capacity* refers to the total latent ability of an actor to effect outcomes in a given arena, acting as the equivalent of mass in the physical sciences. The capacity of an actor is relative to a particular arena within which specific resources can be used to accomplish certain ends. Depending on the resources that define a collective actor, the actor may have great capacity vis-à-vis outcomes in one arena but not another.

Emanation refers to the extent to which the capacity of an actor is actually directed at a given outcome, acting like velocity in physics. Just as massive physical objects will not accomplish work if they lack velocity, actors with substantial capacity do not have power if that capacity is not emanated toward some outcome. In power theory, as in all theories in the social sciences, it is necessary to make certain assumptions about the motivations of actors, otherwise the actors are inert and there is no stimulus for movement (Emmett 1976). Power theory assumes that actors' motivations derive from the resources that constitute their identity as a collective actor. For example, a social movement is motivated to challenge authorities because the movement is constituted by individuals who possess informational and material resources that encourage this kind of behavior. Insofar as the movement does not possess these resources, it ceases to be a social movement. Likewise, the economic and political resources that define classes and states compel these actors toward certain kinds of behavior and not others. In short, the same resources that define the capacities and identities of collective actors also provide them with motivation to carry out behavior.

An actor's power is the product of its capacity and emanation. This idea can be expressed simply as:

$$P_{iy} = C_{iy}E_{iy} \quad (1)$$

where P = power, C = capacity, E = emanation, i = a particular actor, and y = a particular outcome. The concepts of capacity and emanation are abstract and not directly observable. In this sense, power theory is no different than other general theories that propose mechanisms that can be tested only through the use of bridging assumptions.

Different models can be built using power theory. For example, in a simple balance of power framework, outcomes reflect the sum of the power of all actors, with the understanding that the power of some actors will promote the outcome of interest, while the power of others will hinder this outcome. The extent to which a given outcome takes place can therefore be expressed as:

$$Y = \sum_{i=1}^n P_{iy} \quad (2)$$

where Y is the outcome of interest and P is the power (positively or negatively directed) of the actors with respect to Y . More complicated models may make different assumptions about how the power of collective actors should be aggregated. For example, in certain coalitional theories, the addition of a new actor expands the power of the coalition to a degree greater than simply the contribution of the new actor alone. Likewise, for some purposes, analysts may be centrally concerned with changes in the power of particular actors over time (due to alterations in their capacity or emanation, or both). In principle, if analysts are explicit about their underlying assumptions, these coalitional and temporal considerations can also be modeled.

To be linked to empirical analysis, the abstract components of power theory must be specified through bridging assumptions that appear as postulates in a deductive model. As with other general theories, the actual specification of bridging assumptions is often an inductive process that draws on an investigator's specialized knowledge of particular cases. Among the key bridging assumptions that must be formulated are: (1) the definition of the relevant collective actors; (2) the estimation of each actor's capacity and emanation; and (3) the rules for aggregating different actors' power into predictions about outcomes.

The difficulties inherent in developing these bridging assumptions suggest the limitations of power theory. Because there is heterogeneity in the resources that collective actors may possess, and because these resources may not be directly observable, one cannot easily measure capacity. Rather, to estimate capacity, analysts must rely on their specialized knowledge of the actor and a series of heuristic rules. No matter how thoroughly this is done, the best one can hope to achieve is a reasonable approximation of the capacity of actors. Furthermore, the ways in which

resources shape emanation may not be easily established for certain arenas, creating problems for theorizing the degree to which and the very targets at which capacity is directed. Difficulties also can arise if the relevant resources shift rapidly in an evolving situation. For all of these reasons, power theory faces important limitations in application, even if the power of collective actors really does drive the phenomena of interest.

EMPIRICAL APPLICATIONS

If only implicitly, power theory has underpinned empirical research in the field of historical sociology. To illustrate this point, I reconstruct the arguments of two well known works: Dietrich Rueschemeyer, Evelyne Huber Stephens, and John D. Stephens's *Capitalist Development and Democracy* (1992) and Theda Skocpol's *States and Social Revolutions: A Comparative Analysis of France, Russia, and China* (1979).

Rueschemeyer, Stephens, and Stephens (1992) seek to explain the presence or absence of democracy in a broad range of capitalist countries, arguing that "power relations . . . determine whether democracy can emerge, stabilize, and then maintain itself" (5). They begin by assuming the causal mechanism of power theory: resources determine the exercised capacity (i.e., power) of collective actors (postulate 1). Next, they argue that social classes are critical collective actors, and that social and economic resources constitute five main social classes: workers, rural peasants, middle classes, the bourgeoisie, and landed elites (postulate 2). Finally, using a straightforward additive rule for aggregation, they suggest that democracy is significantly a product of the relative balance of power among different social classes (postulate 3). By treating these assumptions as untested postulates and employing the proposition derivation strategy, they therefore generate the following testable proposition:

$$Y = \sum P_{w,r,m,b, \text{ and } l} \quad (3)$$

where Y = the presence or absence of democracy, P = power, w = working class, r = rural peasants, m = middle classes, b = bourgeoisie, and l = landed elites.

The bulk of *Capitalist Development and Democracy* is an effort to test this hypothesis by estimating the power of classes in particular countries and determining whether countries that are predicted to have democracy in fact do have democracy. To estimate capacity and emanation, the authors focus attention on the resources that define different classes. For example, because landed elites usually control dependent labor resources, they tend to possess substantial capacity in agrarian settings and a motivation to resist democracy. By contrast, the working class controls unions and wage earners, making it more likely to mobilize on behalf of democracy. Historical narrative provides the empirical basis for comparing the relative capacity and emanation of particular classes across cases.

A nice illustration of how the authors use this model in practice is their explanation of contrasting outcomes in Sweden and Italy during the interwar years. In the case of Sweden, the relative power of the classes vis-à-vis the outcome of democracy is approximately as follows (these are my estimates): landed elites = -1 , bourgeoisie = 0 , middle classes = 0 , rural peasants = $+3$, and working class = $+5$. By contrast, for interwar Italy, the numbers could be assigned as follows: landed elites = -5 , bourgeoisie = -3 , middle classes = -3 , rural peasants = $+3$, and working class = $+5$. Hence, given the proposition in equation (3), the model predicts (correctly) that democracy should be present in Sweden between the wars because the country has a favorable balance of power (i.e., a sum of $+7$). By contrast, democracy should be absent in Italy during the same time because of its unfavorable balance of power (i.e., a sum of -3).

The historical narratives of the book provide the justification for assigning particular power values to the classes. For example, in both Sweden and Italy, landed elites' control over dependent labor motivated them to emanate nearly all power in a negative direction (i.e., they strongly opposed democracy), but their capacity differed considerably: the Swedish landed classes were tiny and had almost no capacity (thus a power score of -1), while the Italian landed elites were well developed and had considerable capacity (thus a score of -5). As for middle classes and the bourgeoisie, the difference lay not in their relative capacity, but rather their relative emanation: in Italy these classes controlled a substantial rural electorate and thus were an antidemocratic force (-3 each), whereas in Sweden they did not possess similar resources and thus were a neutral force (0 each). Finally, in both cases the peasantry and working classes emanated nearly all power toward democracy, but the working class was more organized and thus had more capacity. Hence, the peasantry receives a score of $+3$, while the working class receives a score of $+5$.

By offering historical narratives that show how specific kinds of resources shape the relative power of different class actors, Rueschemeyer, Stephens, and Stephens use power theory to explain the presence or absence of democracy across a large number of cases. Each successful case study provides support for the authors' overall proposition found in equation (3). That is, the confirming case studies suggest that society is indeed composed of five major class actors and that the resources of these actors ultimately drive major political outcomes.

Skocpol's *States and Social Revolutions* (1979) also implicitly uses the assumptions of power theory, in this case to explain the occurrence of social revolution in agrarian bureaucratic societies. Skocpol theorizes that the potential for social revolution is driven by the emanation and capacity of key actors, especially states and classes. Three relationships concerning relative capacity are especially important: (1) the capacity of a state relative to other states; (2) the capacity of the dominant class relative to the state; and (3) the capacity of subordinate classes relative to the dominant class and the state. Skocpol argues that social revolutions

will occur when the capacity of a state is weak relative to other states, when the dominant class has significant capacity relative to the state, and when the subordinate classes have significant capacity vis-à-vis the dominant class and state.

In this outcome explaining work, Skocpol develops this argument by assuming the causal mechanism of power theory and inductively formulating testable bridging assumptions about the resources of states and classes. For example, she hypothesizes that agrarian-bureaucratic states that are financially and militarily weakened in the international system through wars will seek to carry out modernizing reforms. However, insofar as dominant-class wealth is independent of the state, this class group will have sufficient power to block these reforms, which will throw the state into a crisis. Furthermore, she hypothesizes that the main subordinate class of agrarian-bureaucratic societies — peasants — will revolt against elites if they have the structural resources to do so. In turn, Skocpol postulates that the combination of state crisis and peasant revolt is sufficient for a social revolution.

Skocpol tests the key postulates using evidence from France, Russia, and China. She roughly measures state capacity by considering the effects of wars and international competition on the fiscal stability of absolutist regimes, and she assesses the capacity of dominant classes through a detailed analysis of their ability to buy and hold offices along with their ties within the military. As for subordinate groups, she puts great emphasis on the structural cohesion of peasant villages, especially the extent to which they can function autonomously from landlords and state agents. Through this analysis, Skocpol tests her postulates about the ways in which resources affect the relative balance of power among states, dominant classes, and peasants. To reinforce the test, she examines other agrarian-bureaucratic societies where one of more collective actors lacks the appropriate resources and thus social revolution does not occur. For example, the peasantry in late-nineteenth century Japan lacked the community resources necessary to sustain collective revolts against landlords, whereas the state in mid-seventeenth century England did not experience a devastating loss of financial resources through international competition. Hence, also in this well known work, the resources of collective actors — not the choices of individuals or the needs of systems — underpin the main theoretical logic.

To conclude this section, I would like to suggest that many works in historical sociology implicitly employ power theory in their analyses. Unlike functionalist and rational choice studies, these works start with collective actors and their resources and build toward an understanding of how these resources define capacity and emanation. For example, Barrington Moore's (1966) seminal work on the social origins of the modern world explored the power of different classes and class coalitions. This study has influenced scholars who make similar assumptions in analyzing political outcomes (e.g., Luebbert 1991; Paige 1997). The literature on social welfare also has been strongly influenced by a balance of class power model (e.g., Huber & Stephens 2001). Many other works on collective action, social movements, revolution, and democratization have assumed that the

power of societal challengers and the state is of central importance (e.g., see the literature cited in Goldstone 2003; McAdam, McCarthy & Zald 1996).

More generally, whole theoretical traditions like Marxism could be viewed in terms of power theory. Although Marxist theory is often characterized as a general theory (e.g., Burawoy 1989; Paige 1999), the specific causal agent and causal mechanism of this theory are the subject of debate. Indeed, scholars associated with both rational choice theory (e.g., Elster 1985; Roemer 1982) and functionalism (e.g., Cohen 1982) have subsumed Marxism within their general theories. Given the concern of Marx and his followers with the relative capabilities of competing social groups, however, power theory is arguably more consistent with Marxism's major analytical orientations.

These various examples suggest how power theory might have broad application in historical sociology. They also suggest the potential *theoretical unity* of many leading scholars who work in the field, including Evelyne Huber, Jack Goldstone, Jeff Goodwin, Ann Shola Orloff, Dietrich Rueschemeyer, Theda Skocpol, John Stephens, and others affiliated with the comparative-historical analysis tradition.

Other Potential General Theories

The three general theories examined so far represent the principle general theories that have been used implicitly or explicitly in the field of historical sociology. Here I consider two other theories — neo-Darwinian theory and cultural theory — that suggest alternative causal mechanisms that could be used to inform historical sociology. If we include these theories alongside functional, rational choice, and power theories, we arrive at the full typology of five general theories presented above.

NEO-DARWINIAN THEORY

Scholars in the field of evolutionary psychology use neo-Darwinian theory to explain social phenomena in light of the evolutionary past of human beings (see Freese 2000 for a review). Work in this area self-consciously treats the gene as the elementary unit of analysis. In particular, the gene is the unit through which the process of natural selection operated when early humans were evolving into their current biological form.

Although for analytic purposes evolutionary psychologists will sometimes treat genes as if they are rational actors seeking to proliferate in subsequent generations, in fact the characteristic of genes that allows them to proliferate is their non-purposive contribution to the fitness of individuals (Dawkins 1976). In evolutionary terms, the fitness of individuals corresponds with the number of offspring they introduce into the next generation (Ehrlich 2000:16-20). Because natural selection assumes that individuals with different genetic endowments will have differential contributions of offspring, the fundamental causal role of genes

in neo-Darwinian theory is to shape the relative fitness of individuals in the ancestral environment (i.e., in the historical settings within which humans evolved).

This perspective has informed a growing body of sociological literature that draws on the empirical strategies discussed above. Although most of this work falls outside historical sociology, a neo-Darwinian approach is not inherently incompatible with macro-historical research (Hopcroft 2001:159). For example, because evolutionary theorists assume that all humans (except perhaps men and women) share the same basic genetic material,⁸ these theorists use the outcome explaining strategy to account for recurrent patterns of social organization, such as stratification and sex discrimination (Wright 1994). Likewise, certain crucial events and transitions in human history — such as the advent of monogamy, the creation of settled agriculture, or even economic growth — are explained in neo-Darwinian terms because the genes that made these occurrences possible conferred an adaptive advantage to their carriers in the ancestral environment (e.g., Galor & Moav 2002; Kanazawa & Still 1999).

Beyond this, neo-Darwinian theory is used to explain why humans respond to social structures in patterned and predictable ways. For example, one might ask why poverty and crime are associated with one another. A potential neo-Darwinian answer is that the association exists because genes that encourage norm breaking and risk taking in the face of social marginalization contributed to fitness in the ancestral environment. In this sense, neo-Darwinian theory explains variation in human behavior by deriving propositions that treat environmental conditions as independent variables; evolved human biology is the omnitemporal mechanism that accounts for the existence of the association in the first place. When applied to historical sociology, this kind of analysis could help integrate knowledge about broad correlational patterns, such as the relationship between urbanization and nationalism (Whitmeyer 1997), economic development and fertility decline (Turke 1989), and subsistence technology and family structure (van den Berghe 1979).

Even though neo-Darwinian scholars embrace the project of general theorizing, there are good reasons to predict that the contribution of neo-Darwinian theory to historical sociology will be modest. One important reason is the resistance that evolutionary approaches face within the sociology discipline. Many sociologists see this work as advocating a kind of biological determinism that is inappropriate for explaining the tremendous diversity found across human societies. While these kinds of criticisms often reflect a poor understanding of neo-Darwinian theory, they carry a great deal of weight within sociology (Freese 2000; Turner 2004).

Beyond the difficulty of encouraging mainstream sociologists to take seriously modern evolutionary biology, however, I believe that the potential of neo-Darwinian theory for explaining outcomes in historical sociology is limited. Outcomes such as revolutions and democratization represent the conjuncture of numerous actors and separately determined processes that conjoin in complicated ways. Although it is certainly true that neo-Darwinian theory might be able to explain pieces of these complex outcomes, the theory would need to introduce a huge range of

postulates to account for all of the differentially motivated behavior that combines to produce the overall occurrences. In practice, this may prove impossible. Even more than the other general theories, then, the practical utility of neo-Darwinian theory for outcome explanation may be inversely related to the complexity of behaviors underlying the social phenomenon of interest.

CULTURAL THEORY

In sharp contrast to neo-Darwinian theory, cultural theory works at a super-individual level of analysis, given that “culture” is a property of collectivities — societies, social groups, and communities — rather than individuals. The collectivity remains the main level of analysis even though many cultural theorists treat cultures as weakly bounded, dynamic, contested, and loosely integrated (Sewell 1999). Furthermore, since Durkheim, theorists have assumed that cultural communities exhibit emergent properties that cannot be reduced to the constituent individuals that compose these communities (Sawyer 2001). This is one reason why cultural theorists have insisted that the analysis of cultural collectivities yields insights that cannot be generated by the analysis of individuals alone.

The term culture is used in many different ways in this field, and it is impossible to offer a single definition that encompasses all conceptualizations (see Ortnor 1984; Sewell 1999). But one possible definition that captures the spirit of many recent conceptualizations is culture as “semiotic practices” (Wedeen 2002) or “systems of meaning and the practices in which they are embedded” (Steinmetz 1999:7). This definition is useful for the present discussion because it suggests a potential causal mechanism: the meanings and associated practices embodied within a given collectivity. Like other causal mechanisms, this one is abstract and underspecified; to be empirically useful, it is necessary to employ bridging assumptions that add substantive content to its omnitemporal core. In conjunction with bridging assumptions, however, there is no reason why a cultural theorist could not use semiotic practices in much the same way that a rational choice theorist uses instrumental rationality to pursue the strategies of hypothesis derivation, knowledge integration, and outcome explanation.

Some cultural theorists who work in the field of historical sociology are comfortable asserting that culture understood roughly as semiotic practices is a cause of outcomes (Alexander & Smith 2002). For example, Gorski (2003) argues that the particular understanding of Protestantism and the associated emphasis on disciplinary practices that emerged in Calvinist countries was an important cause of modern state formation. Wedeen (1999) argues that the rhetorical practices and symbols that made up the “cult” of President Hafiz al-Asad were a major cause of political stability in Syria. Orloff (1999) argues that the cultural assumptions and practices concerning motherhood in advanced capitalist countries shaped the extent to which welfare systems subjected mothers to market discipline.

Recasting these works as implicit applications of a general cultural theory would require assuming that their authors see semiotic practices as a foundational causal mechanism rather than as one particular independent variable among several others. Likewise, it would be necessary to specify how the authors use case knowledge to formulate key bridging assumptions. Among the key bridging assumptions that would need to be developed are the definition of the semiotic practices of interest, the delineation of the spatial and temporal boundaries in which these semiotic practices are found, and the precise linkages between semiotic practices and other phenomena of interest. This kind of reconstruction could help make explicit underlying assumptions that are implicit in these studies. At the same time, however, it is not clear that the authors of these works treat (even implicitly) semiotic practices as the fundamental starting point for deductive theorizing. Hence, more than is true with the applications of power theory considered above, reconstructing these examples as implicit uses of a general cultural theory may be inappropriate.

Indeed, at least some cultural theorists likely would prefer to distance themselves from general theorizing as understood here. This is true in part because cultural theory as a whole has an ambiguous stance toward causal analysis and often an adversarial relationship with modes of inquiry that are too closely identified with "positivistic" science. For example, some postmodern strands of cultural theory reject causal explanation as a goal (see Biernacki 1999; Bonnell and Hunt 1999) and therefore likely would stand in opposition to efforts to treat culture as a foundational cause of outcomes and associations. Some interpretive cultural theorists may feel likewise, inspired as they are by Geertz (1973) and others who seek the explication of meanings rather than the identification of causes. The argument here is not that these uses of cultural theory are unproductive or inappropriate. Rather, the claim is that their core epistemological assumptions about how to pursue social science lead them to be incompatible with the pursuit of general theory.

Conclusion

This article has sought to refocus the discussion of general theory in historical sociology on certain basic questions that are not yet resolved: What are the defining features of general theory? What specific strategies are used to connect general theories with empirical research? What are examples of general theories that are used (or could be used) in historical sociology?

The article offered a set of answers to these questions. It argued that general theories are postulates about ontologically primitive causes built around specific agents and mechanisms. Although these theories are empirically underspecified and not directly testable, they can be linked to substantive analysis through the use of bridging assumptions. In particular, analysts can pursue three research strategies:

hypothesis derivation, knowledge integration, and outcome explanation. Each of these strategies attempts to fill the black box of explanation by proposing that final causation rests with an omnitemporal causal mechanism. In the field of historical sociology, analysts have used or could use at least five different general theories: functionalist theory, rational choice theory, power theory, neo-Darwinian theory, and cultural theory. These theories are defined by distinct causal mechanisms and agents: the needs of social systems in functionalist theory, the instrumental rationality of individuals in rational choice theory, the resources of collective actors in power theory, the fitness of genes in the ancestral environment in neo-Darwinian theory, and the semiotic practices of collectivities in cultural theory.

The goal of this article has not been to advocate on behalf of general theory at the expense of other modes of sociological theory. Nor has the article sought to promote any particular general theory at the expense of all others. Rather, the article adopted a middle ground position similar to Calhoun (1998:860), who argues that general theories are “a useful part of the disciplinary tool kit, better for some kinds of intellectual projects and problems than others, but poorly understood as definitive of theory (or science or the advancement of knowledge) in general.” This kind of balanced assessment sets a good tone for future discussions of general theory.

Even so, these future discussions are likely to feature sharp debates over both epistemological and ontological questions. The epistemological debate likely will revolve around the longstanding question of whether a model of inference in which propositions are logically derived from postulates is appropriate for social science research. I would hope that this article helps make this debate more productive by clarifying the specific ways in which this epistemology is employed in conjunction with general theory. The ontological debate likely will involve a dispute among advocates of general theory who agree broadly about epistemology but who disagree about which particular general theory is most appropriate for the field of historical sociology. To this point, rational choice scholars have monopolized this discussion by equating general theory with rational choice theory. But I would hope that this article illustrates that, in fact, several different theoretical traditions are compatible with the use of general theory.

Notes

1. The debate was launched with Kiser and Hechter (1991). Responses to Kiser and Hechter include Quadagno and Knapp (1992); Skocpol (1994); Boudon (1998); Calhoun (1998); Goldstone (1998); Somers (1998). See also Kiser and Hechter's (1998) reply to their critics and the overview of the debate by Gould (2004).

2. Consider, for example, the different visions of a good society generated by rational choice theory, ranging from socialism (Przeworski 1985) to free market capitalism (Friedman 1953).

3. The problem with Friedman's (1953:14) famous argument justifying the use of untrue postulates is that the syllogistic logic for generating propositions depends on the truth of the postulates; a conclusion that follows logically from false postulates may itself be false. Furthermore, insofar as one is committed to scientific realism (which is the case for most proponents of scientific theory, including mid-twentieth-century philosophers such as Karl Popper, Carl Hempel, and Ernest Nagel), one treats all postulates — even those that make reference to unobservable entities — as reflecting an independent reality.
4. In practice, general theories are rarely definitively falsified or proven true; rather, evidence leads scientists to doubt some general theories and favor others. The extent to which and ways in which disconfirming evidence falsifies a theory has long engaged philosophers of science, including Karl Popper, Carl Hempel, Thomas Kuhn, Imre Lakatos, Paul Feyerabend, Philip Kitcher, Larry Laudan, and followers of Tomas Bayes. Sorting out the relative merits of these alternative views of theory confirmation and falsification is beyond the scope of this article.
5. An exception would be a future outcome that is successfully predicted by the postulates. These predictions provide strong support for a general theory. However, historical sociologists usually study outcomes that occur in the past, making this possibility less relevant to the discussion at hand.
6. Both functionalism and rational choice theory are complex and diverse research traditions in the social sciences (on functionalism, see Alexander 1983, 1998; Kincaid 1996; Turner & Maryanski 1979; on rational choice theory, see Coleman & Fararo 1992; Friedman & Hechter 1988; Kiser & Hechter 1998). Here I simplify these traditions in order to focus on a core set of assumptions that give unity to a general theory. Thus, with functionalism, I am concerned only with those strands of the theory in which system needs (however specified) are treated as a foundational cause. Likewise, with rational choice theory, I limit my analysis to a "thin theory" of rational choice in which actor interests are not specified by the theory itself.
7. There are countless different definitions of power available in the literature. A large collection is available in Scott (1994). The best philosophical analysis of power is probably Morriss (2002), who also offers more recent references. However, Morriss's analysis is explicitly not intended for use in explanatory or predictive social science. Hence, the approach adopted here varies radically from his analysis and conclusions.
8. The field of behavioral genetics, which assumes that variations in the genes of individual humans can explain differences in their behavior, is separate from neo-Darwinian theory as discussed here and as used in evolutionary psychology.

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Why “Unobservables” Cannot Save General Theory: A Reply to Mahoney*

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In James Mahoney’s article, “Revisiting General Theory in Historical Sociology,” published in *Social Forces*, volume 83, number 2 (pp. 459-90), certain foundational claims are made, including these, all of them knowingly inflammatory:

The aspect of a general theory that is general is its use of an abstract causal mechanism that exists outside space and time. (Mahoney 2004b:459)

A general theory is a postulate about a foundational cause that features two components: a causal agent and a causal mechanism. (Mahoney 2004b:459)

These mechanisms are empirically underspecified, exist outside specific spatial and temporal boundaries, and cannot be directly observed . . . they are original movers or “ultimate causes” . . . For example, instrumental rationality — the causal mechanism of rational choice theory — is an unobservable property devoid of precise empirical content and specific time/place referents . . . The positing of omnitemporal and unobserved mechanisms that serve as primitive causes has been discussed primarily in the natural sciences [In the penultimate version of the article, Mahoney’s supporting citations included the following in note 2: “A lesson from the natural sciences is that one should not evaluate general theories based on the empirical plausibility of their causal mechanisms” (Mahoney 2004a).], but the same practice applies to the social sciences. Taken together, a causal agent and a causal mechanism represent the “hard core” of a general theory, or that part of the theory that is shared by all scholars who use it. This hard core is not usually directly tested. . . . a general theory is not itself a testable hypothesis. (Mahoney 2004b:459–60)

Resources [in “power theory”] are potentially unobservable bundles of ideas and materials. (Mahoney 2004b:461)

When a general theory is used, the starting postulate assumes a given causal agent and mechanism. Since the causal mechanism refers to an abstract property,

* The following commentary was written as part of a blind-review process, before the author of the article was identified by name. Direct correspondence to Alan Sica, Pennsylvania State University, 211 Oswald, University Park, PA 16802-6207. E-mail: alansica@psu.edu.

Insofar as one is committed to scientific realism (which is the case for most proponents of general theory, including mid-twentieth-century philosophers such as Karl Popper, Carl Hempel, and Ernest Nagel), one treats all postulates — even those that make reference to unobservable entities — *as reflecting an independent reality* (emphases added). (Mahoney 2004b:482)

Most tellingly, in a paragraph of the penultimate version of the article (dated March 10, 2004) which was deleted in the final iteration, perhaps in response to my already written critique of it, these remarks appeared in order to summarize the importance of “outcome explanation”:

Scholars using this strategy test the postulates because they contain the hypothesized explanation for the outcome. Notably, however, the initial postulate refers to an abstract causal mechanism that cannot itself be tested . . . In the end, nevertheless, the analyst must make *a leap of faith* in the existence of the causal mechanism, since this beginning postulate is never directly tested, and since the final proposition (i.e., the outcome of interest) is also not tested. (Mahoney 2004a:16, emphases added)

Thomas Aquinas would have appreciated these remarks, as would any of his brighter, scholastic colleagues in the thirteenth century. In fact, they might well have written them, since they were “realists” and not “nominalists” (even without the tutelage of the twentieth century “neorealists,” G.E. Moore, Bertrand Russell, Samuel Alexander, et al.). There is a touchingly medieval quality to the statements quoted above, and even though I cannot debate each point here, they do invite oblique examination.

Whenever I read an article of this general type, certain images come to mind, as if I had been asked to write a screenplay which might capture its unintended meaning. To wit: while their dedicated, officious assistants flutter about, I picture James Mason (playing Karl Popper) and Rod Serling (Carl Hempel) — both of whom serve as ceremonial godfathers for the article’s main thrust — gently lording over a summer conference at some *gemütliches* chalet in Austria around 1960. Darker-skinned guestworkers from Italy or Spain serve cocoa and biscotti to a rapt, appreciative crowd of well-groomed, mainly American and British graduate students. It is clear that all of them are tickled pink to have been invited because they are unified in their hearts by a single orchestrating hope, one that banishes all other, lesser desires from mind: to become Real Scientists; to master the Scientific Method, the Hypothetico-Deductive Model, to find the keys to the kingdom of Absolutely Falsifiable Near-Certainty along the lines that Hempel and Sir Karl had made abundantly clear in their writings over the preceding 30 years. Like Marx or Durkheim, they want to advance “scientific” knowledge; unlike them, they care more for formal logic than for theorizing the messiness of human experience on its own terms.

Yet the only problem, and one which troubles them deeply when they are alone, is that they are not “real” scientists at all, not physicists or astro-geologists, nor

even entomologists. Instead, they are sociologists and political scientists (dismissed from the true scientific brotherhood even by their supercilious colleagues, the post-Jevonian economists). And although their data sets are full of embarrassing holes, and while “agency,” “consciousness,” “collective behavior,” and all manner of other troubling characteristics of humankind interfere with their aspirations to “do real science” under the covering-law model of proof — their *explanandum* never quite living up to their *explanans* — they nevertheless put on the cheeriest faces of juvenile hope, adjust their Thinking Caps, and await Popper’s and Hempel’s directives on the *Autobahn* to the truths that only Big Science can deliver. To breathe the giddy air of the high Alps in such company is perhaps enough of a reward, even without learning precisely how to carry out social “science” when back at the sea-level homesite. Still, pursuing “deductive-nomological explanations” (Hempel 1966:51) is hard work, and they, NSF postdoctoral grants in hand, are up to the task. Fade to black. These cinematic imaginings aside, the article indeed poses significant questions concerning sociology’s heart-breaking quest to become a science, and on that basis alone deserves a response.

In view of this Alpine fantasy, perhaps I am not the right person to comment on this earnest piece, and should have passed it to someone equally keen on proving (yet again) that there is indeed, and contrary to experience, a “general theory” that could be fruitfully fitted to the social world of humans. Yet it does deal with some books I have read and thought about, in an area of work, “historical sociology” (particularly as practiced by Weber), with which I am not unfamiliar, so curiosity swept away my scruples. And the article is not without a certain value, even if not in the way the author intended. I have studied its arguments in order to find out if the author could actually demonstrate anything new or different or enlightening about the four major books and several articles examined. It holds, for example, that if one converts Rueschmeyer, Stephens and Stephens (1992), “formally speaking,” as the author puts it, into a formula (“using a straightforward additive rule for aggregation”) of $Y = \sum P w, r, m, b, \text{ and } l$, (where Y is the presence or absence of democracy, P = power, w = working class, r = rural peasants, m = middle class, b = bourgeoisie, and l = landed elites), and if one then works backward, supplying constants for each variable in some proportion that approximates the historical record of social changes in, say, Sweden and Italy, then, *mirabile dictu*, the “theory” “works.” (How well it would work in, say, Iraq today, is another matter entirely.)

Why exactly this “formalization” or “modeling” is held to improve on the book as it was published, or on social science as currently practiced, I cannot imagine — particularly since the burden of the book is to show that quantitative comparative research is *methodologically* inferior to historical case studies. What does occur in plain view is the unseemly disembowelment and trivialization of a book in which the authors took considerable pains to “get it right” historically, and onto which are tacked a set of generalizations meant to illuminate or clarify the original discursive text. Similarly sacrificed on the altar of scientism are Skocpol’s fa-

mous dissertation (1979), Brustein's analysis of Nazism, and Gerard Alexander's consideration of Spanish democratization. All become grist for the "formal respecification" mill that is the *raison d'être* of the article. Of course, this sort of maneuver has been carried out before, with great sophistication, but with equally fruitless results. In 1971, the statistician Robert H. Somers subjected the very book that inspired Skocpol, Barrington Moore's *Social Origins of Dictatorship and Democracy*, to an extended "formalization" (Somers 1971:357-420). With no inconsiderable subtlety, he tried to bring Moore's best-selling historical monograph into the ken of statistical reasoning, beginning with this pivotal observation:

Moore is primarily a historian [?], and an analysis of his work offers a great challenge for one who views it from the relatively distant perspective of statistical and quantitative analysis. An assessment of the larger methodological issues that Moore's study raises . . . leads to problems that are not easily solved by the conventional canons of quantitative methodology — problems that, indeed, raise questions about the very meaning of scientific work in this domain. . . It is quite possible that some of these problems have no solution. A work such as Moore's remains, in many respects, art rather than science. While I have nothing against art, I believe there is merit in considering whether historical analysis, especially when it is intended to help man make more rational choices in the pursuit of desirable goals, cannot be made a basis for the development of knowledge that is more reliable, consensual, and systematic than artistic insights ordinarily are. (Somers 1971:358)

Without belaboring the obvious, and with the comfort of hindsight, perhaps it is enough to observe that Moore's book has become absolutely canonical in comparative-historical sociology and political science, and its very "artfulness" is what has caused it to be read and emulated continuously since it was published nearly 40 years ago. The same cannot be said for Somers's earnest, detailed reconstruction of Moore's argument along positivist lines.

Sad to say, to document even minimally what I regard as the corrosive diminution of these important works in historical sociology would require far more pages than I have been allocated, so another tack must be taken if the article's true character is to be revealed. This inadvertently demonstrates both the great charm and the great danger of reductive equations: they are at once curt, parsimonious, yet substantively empty and potentially distorting.

Rather than arguing over what is lost or gained by formalizing certain exemplars of historical sociology (e.g., the very historical details which give the books their strength), a quick appraisal of the author's epistemological position might yield a larger payoff. This is because if the epistemology or "logic" of the favored approach is faulty, the edifice built upon it naturally caves in — a point with which the author would surely concur. By way of beginning, consider this: Why is it that general theorists very seldom feel the need to disassemble the ordinary quantitatively inspired journal article — so-called "mainstream sociology" — to see if there are any ideas in such texts that could be restated in a style more in keeping with

discursive theory, and therefore demystified? I ask this rhetorically, of course, since the paucity of “big ideas” in such publications is as much an accepted feature of everyday sociology as a lack of equations is standard within the typical theory piece. Not only do the creators of these contrasting scholarly styles, whose memberships rarely overlap, come to their work tables with entirely different tools, but the theorist usually lacks the statistical know-how required to decipher survey research pieces in expert fashion, just as their opposite numbers possess uncertain knowledge of theory proper, especially in its philosophical or historical dimensions. That this problem, if it truly is such, of bifurcated consciousnesses has been common to sociology since Comte (who, one recalls, was a mathematical prodigy) does not reduce its enduring importance to a discipline that continues hunting for a reliable epistemology, as well as the most plausible public persona. The troublesome “two cultures” that C.P. Snow immortalized 45 years ago, while perhaps minimized within some scientific arenas, lives on in sociology as vibrantly as ever. Yet the desire to create and defend “general theory” retains its appeal for a number of scholars on both sides of the aisle, quantitative and discursive. Considering all the well-known barriers to such a goal, one wonders why.

The immediate theoretical, as well as epistemological, impetus behind the article under examination seems to come from Kiser and Hechter (1991, 1998), and the half-dozen responses to them in ensuing years. Yet the drive to do “science” under the guidance of general axioms, from which subsidiary statements can be deduced, is much older — an elusive ideal inaugurated by Hobbes in 1651 and carried on by Locke, Turgot, Condorcet, Saint-Simon, Comte, and others, culminating in the statistical wizardry of Quetelet. Hobbes fired the first shot by claiming the “passions of men are commonly more potent than their reason” (*Leviathan*, chap. 19, para. 4), with the implied hope that destructive, animal irrationality could be curtailed among civilized people. The subsequent 350 years of world history gives little cause to believe that Hobbes was on the right theoretical track, yet he continues to be honored, even in the breach. The way to muzzle human animality, so he thought, was to understand it objectively, to theorize its essence, and then to sublimate or otherwise control it through reasonable government. If this seems worlds removed from works like, e.g., Kiser and Hechter or Coleman’s *Foundations of Social Theory*, the distance is an illusion, since the primary motivation behind works that emphasize “rational action” are all of a piece (in the same way that the *verstehende* tradition in German scholarship shares a distinct scholarly *Weltanschauung*). Their uniform goal, no matter how circumspectly expressed, is to attain “prediction and control,” the mantra of scientific thinking since Bacon. Doctor Faust would understand the appeal, and also the costs. Note, too, that prediction and control have little to do, formally speaking, with “meaning and understanding,” the analogous pair of key concepts for the *verstehende* school peopled by Dilthey, Weber, Simmel, and others, such as

Jacob Burckhardt, probably the most esteemed cultural historian of the nineteenth century. He lectured in 1869 as follows:

The study of any other branch of knowledge may begin with origins, but not that of history. After all, our historical pictures are, for the most part, pure constructions . . . Indeed, they are mere reflections of ourselves. . . . History is actually the most unscientific of all the sciences, although it communicates so much that is worth knowing. Clear-cut concepts belong to logic, not to history, where everything is in a state of flux, of perpetual transition and combination. Philosophical and historical ideas differ in essence and origin; the former must be as firm and exclusive as possible, the latter as fluid and open. (Burckhardt 1979:121–22, 35)

In today's politics, as West once again confronts the Middle East in the so-called "clash of civilizations," the urgent need to predict behaviors and then control or eliminate them has failed miserably precisely because the preliminary task of understanding cultural meanings was bypassed by ignorant functionaries spawned by *Realpolitik*.

Reconsider one fountainhead of this general attitude, *Research on the Propensity for Crime at Different Ages* (1833) by Adolphe Quetelet. The pertinent subsection is called "Concerning the Possibility of Establishing the Foundations of a Social Mechanics," where Quetelet lays out a catechism for positivist research that could be inserted with few changes into today's methods textbooks, and which embroiders upon the social physics tradition begun by Saint-Simon 30 years before. Quetelet sought "laws" of the *average* man as defined by national identity, calling for "studying him in a consistent way" in search of "certain forces which he has at his command." He continues:

In admitting that these forces actually exist, as all observations appear to prove, I call them *disturbing forces* of man by analogy with the disturbing forces which scientists have considered in the system of the universe. One imagines that the effect which results from them act with such slowness that they could be called equally by analogy *secular disturbances*. The science which would have such a study as a goal would be a veritable *social mechanics*, which, no doubt, would present laws quite as admirable as the mechanics of inanimate objects. . . . This way of looking at the social system has something positive [positivist] about it which must, at first, frighten certain minds. Some will see in it a tendency to materialism. Others, in interpreting my ideas badly, will find there an exaggerated pretension to aggrandize the domain of the exact sciences and to place the geometrician in an element which is not his own. They will reproach me for becoming involved in absurd speculations while being occupied with things which are not susceptible to being measured.

Quetelet argues against these imagined counterpositions (mostly using the "power of the divinity" as his shield), despite his unconcealed admiration for "the geometrician" as a general scholarly type. Then he cuts to the chase:

After having seen the progress which the sciences have pursued in regard to universes, are we not able to try to pursue it in regard to men? Would it not be absurd to believe that, while all happens according to such admirable laws, the human species alone remains blindly neglected itself, and that it possesses no principles at all for conservation?

He is worried, though, about certain potential drawbacks to his plan for a social science that mimics physics:

Perhaps one will accord us the possibility of such an appreciation for the physical qualities of man which allow measurement directly, but how will it be proper to grasp them for moral and intellectual qualities? . . . Would not one laugh at the pretention of a geometrician who would maintain seriously that he has calculated that the genius of Homer to that of Virgil is as three is to two?

Once again, though, he brushes off his putative critics and defends his cognitive goals as do-able.

Despite its quaint flavor, this epistemological platform remains unchanged among those today who still wish to create a “social mechanics,” particularly the devotees of “rational action” or “rational choice” theories, since they feel they are by far the closest to a “real” science of human behavior — so long as one accepts without question their quiver of analytic assumptions. The longing among such people to achieve the Queteletian vision — for a social science that produces laws as reliable as those enunciated by Newton and Boyle — remains palpable in their endless programmatic statements, even if their rhetoric is now more practiced and guarded than was that of their many intellectual progenitors.

In exploring this dogged passion for causal understanding, let us leapfrog to a 1950 issue of *Ethics: An International Journal of Social, Political, and Legal Philosophy* (on whose editorial board sat John Dewey, Harold Lasswell, H. J. Paton, W. D. Ross, Ralph Barton Perry, and a dozen other academic stars). Herein a precocious Chicago graduate student, Paul Diesing, published “The Nature and Limitations of Economic Rationality,” which for clarity, scope, and general wisdom outstrips any similar statements one is likely to find nowadays. Sad to say, I cannot do justice to the article here, but a few excerpts are in order as we try to assess the meaning of “rationality” as currently celebrated by a number of scientistic sociologists. The wonder, of course, is that reflections such as Diesing’s could have been current a half-century ago, yet have still not deterred those researchers whose Golden Fleece is a tracking of causality based on the fantasied rationality of social actors, whether individual or collective.

Diesing begins:

Economic rationality, or economizing, consists of the deliberate allocation of scarce means to alternative ends in such a way that the ends are maximized. There is general agreement on the above definition, but disagreement on how it applies to reality. The disagreements concern two main issues. The first issue is whether economic rationality is primarily a description of how men do act or a standard

of how they ought to act. . . . The argument begins with the utilitarian claim that the principle of utility is equally descriptive and normative, continues with theories which treat it as primarily descriptive, and concludes with a theory that is primarily normative. The second issue is whether the principle applies to all social action or to only one kind or one phase of action. This issue may seem to have been settled by the elaboration of noneconomic residual categories, as, for instance, by Pareto, which disproved the utilitarian claim that all action is economic. . . . The real problem is to discover a kind of rationality different from economic rationality. If there is no other kind, all noneconomic behavior is completely irrational, and therefore scientifically unknowable. . . . I shall show what happens when economic rationality is applied outside its proper limits. (12)

These are bold claims for a 27-year old graduate student, but the times were different then, for he had already served in the U.S. Army for three years during the War, and thus had seen “irrationality” in the flesh. Diesing also understood the underlying cultural roots of the rationality fetish:

Ordinary, rational, middle-class people could be counted on to economize; hence, if economic theory could not claim to describe the actions of all men, at least it described those of all good men. . . . hence, the practical corollary of this position is that irrationality, socialism, etc., ought to be abolished. The taking of this position was, and is still, common, as in the denunciation of backward colonial countries, the condemnation of laborers preferring security and ease to hard work and advancement, etc. Its similarity to the Protestant ethic as treated by Weber has been pointed out by Parsons.” (13)

Quite the same argument might be made about “rational choice theory” as posited in the article under consideration here: it partakes of an attitude that smacks of the politically reactionary, the culturally imperious, and what might overall be termed the “Popperian worldview” — or that of the very “nation of shopkeepers” which inspired so much of this thinking. Diesing evaluates the ideas of Alfred Marshall, Keynes, and Lionel Robbins, pointing out that “ethical criteria, of course, are also irrelevant” when issues of “economizing” are at stake. He shrewdly notes, almost as if anticipating today’s arguments, that “it is natural for someone concentrating on an analytic aspect of anything eventually to suppose that he is dealing with something concrete” (Diesing 1950:15). Philosophers of science, of course, love to distinguish between the “analytic” and the merely “empirical,” as if the former has nothing to do with the latter, as if defining the former could possibly arise in any way except after observing what constitutes the “merely empirical” (hence, mutable), and deciding, post facto, what categories might best illuminate a given phenomenon. There is considerable hocus-pocus to such positions, and Diesing was already aware of them 54 years ago.

He concludes with simple precision: “Economic laws do not describe how real people act, but how an economically rational man would act” (p. 16). This might serve well enough for a model-crazed economics that apes physics for all its worth,

but within sociology — which, we might recall, concerns the lives of people *as lived* — such a theoretical angle leaves virtually everything important by the wayside. Diesing takes his argument a step further: “Economic rationality, on the other hand, never appears directly but is imbedded in nonrational norms, such as thrift, enterprise, and efficiency . . . [it] never appears separately but always appears in containing norms . . . [It], then, is a rational a priori norm derived from the concept of allocating scarce means to alternative ends. It does not apply to concrete types of action. . . Its scope is limited by other norms, both rational . . . and irrational” (pp. 16–17). His final blast needs to be rebroadcast today: “Hence the standard of utility or any other unilateral means-end norm is inapplicable ultimately to a system of social relations. The system, has, so to speak, no purpose” (p. 21). In consequence, when “the scope of economic rationality is extended into the system of social relations,” it brings with it “destructive effects” (p. 22). Put another way, those scholars who opt for an analytic perspective based on rational action have traded the chance to understand human life at large for the nugatory comforts associated with small-scale precision — all predicated on a fictional (read: “analytic”) portrait of human action, in the marketplace or beyond it.

Speaking more precisely to the article at hand, there remain a battery of peculiar claims that require mention. For example, “The postulates themselves. . . are judged based on their capacity to yield empirically supported hypotheses, especially hypotheses that are counterintuitive vis-à-vis common sense or other theoretical expectations (Popper 1968).” The quixotic hunt for the counter-intuitive has always fascinated me, because of the allied notion that “real science” and “rigorous formal restatements of the merely anecdotal” ought above all to search high and low for cases which contradict normal experience and common knowledge. What’s the matter with intuitive appeal? Is it not the basis of all human knowledge except for that of those baleful scientists hoping to wow their peers with sharply contrarian wisdom concocted through ingenious experiments? Is there anything in Popper’s own work that is actually counterintuitive? If one knows the rudimentary outlines of epistemological and political conservatism, there is nothing surprising to the man, except for his lamentable misreading of Plato and Hegel.

The various subtleties, confusions, and elaborations that surround “functionalism” as realized by its most skillful proponents are missed in this article. Once again, one must ask: what does one gain exactly from “formalization” that was not already present in the original material? “The problem is simply that its practitioners do not formally specify their postulates and the lines of reasoning they use to deduce propositions. More fundamentally, the testable aspects of functionalist arguments often appear to be false.” Insisting that functionalism be measured “through the use of the strategies described here,” and then faulting it for failing to live up to these arbitrary standards, says very little for the utility of functionalist reasoning. This is only a problem for those who demand of other authors fidelity to a model of inquiry which is alien to their original purposes. It is like blaming a fox for not being a hedgehog.

Because it generally abides by the standards of “hypothesis derivation” and “untestable postulates,” Brustein’s *The Logic of Evil* receives high praise; it is premised on this claim: “German voters were rational individuals.” This is hard even to write without breaking into demented laughter, something the author all but admits later on. With all the ink that’s been used in trying to figure out why those Germans who voted for Hitler did so, often *against* their own best economic interests — which is not unlike blacks or blue-collar workers voting for Reagan and Bush II, of course — Table 3 becomes a sad parody of “science” and “formal restatement.” In the end it comes to this: why are “testable propositions” (and one can leave aside for the time being specifying the exact mechanics of such “testing,” which may be much too cumbersome to perform) the Holy Grail? Who cares? In the case of Nazism, of all things historical, attempted formalizations such as this seem entirely beside the point. If one wants to understand why “decent Germans” voted for Hitler, one needs only to read the Versailles treaty, or the series of novels by Erich Maria Remarque that describe socioeconomic life in Germany between the wars. There is something to this particular exercise in hypothesis testing that verges on the morally repugnant.

Also, the article puts a lot of faith in Jasso’s special version of theorizing: “‘The ideal theory is a theory of the operation of a basic force,’ writes Guillermina Jasso (1988:5).” An article that builds its edifice on such a tendentious claim risks crashing into disarray as the load of substantive materials it tries to accommodate becomes ever heavier. Who can say that an “ideal theory” is such a thing as Jasso imagines? First of all, the very notion of an “ideal theory” can be nothing more than a charming fantasy, and secondly, the best theories explain things in a persuasive and plausible way to experts in a given area. Other than that, theories have no obligations, and particularly none to please the frustrated physicists among us.

Finally, the discussions of neo-Darwinian theory, so-called, where the gene is king, and cultural theory (an extreme truncation of a huge panoply of scholarly fields), defined as that zone of life wherein “semiotic practices” predominate, leave too many essential questions unanswered to be really useful. However, one of the best paragraphs in the article just precedes the “Conclusion,” where the author admits that many cultural theorists “reject causal explanation as a goal,” and therefore produce work which is “incompatible with the pursuit of general theory.” With this realization, finally, I can wholeheartedly agree.

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The Paradox of Social Organization: Networks, Collective Efficacy, and Violent Crime in Urban Neighborhoods*

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Abstract

Theories of neighborhood social organization and crime have not effectively explained the existence of socially organized, high-crime neighborhoods. We describe and test an alternative theory of urban violence that highlights the tension between two dimensions of social organization — social networks (ties and exchange between neighborhood residents) and collective efficacy (mutual trust and solidarity combined with expectations for prosocial action) — in the regulation of neighborhood crime. We argue that while social networks may contribute to neighborhood collective efficacy, they also provide a source of social capital for offenders, potentially diminishing the regulatory effectiveness of collective efficacy. This negotiated coexistence model is considered alongside two competing theories of neighborhood crime drawn from the systemic and cultural transmission perspectives. We test these theories using 1990 census data, the 1994–95 Project on Human Development in Chicago Neighborhoods Community Survey, and 1995–97 Chicago Homicide Data. Consistent with the negotiated coexistence approach, spatial lag models of violent victimization and the 1995–97 log homicide rate indicate that the regulatory effects of collective efficacy on violence are substantially reduced in neighborhoods characterized by high levels of network interaction and reciprocated exchange.

* The authors wish to thank Robert Sampson, Felton Earls, and the Project on Human Development in Chicago Neighborhoods for generously providing access to the Community Survey data and the Ohio State University Criminal Justice Research Center and the Center for Urban and Regional Analysis for their support. Thanks also to Paul Bellair, Dana Haynie, Lauren Krivo, Ross Matsueda, Pam Paxton, Ruth Peterson, Robert Sampson, and Maria Velez for their helpful comments. Direct correspondence to Christopher R. Browning, Department of Sociology, The Ohio State University, 300 Bricker Hall, 190 N. Oval Mall, Columbus, OH 43210. E-mail: browning.90@osu.edu.

Fueled by the emergence and widespread application of social capital theory (Coleman 1990; Portes 1998), research on violent crime has seen a renewed interest in the contribution of community social organization to patterns of offending. Building on a long history of ecologically oriented research, recent work has emphasized the role of structural factors such as poverty and residential instability in compromising the strength of network ties, neighborhood attachments, and shared norms — the ingredients of social organization thought to be necessary for the successful regulation of neighborhood crime (Bellair 1997; Sampson, Raudenbush & Earls 1997). Despite substantial empirical and theoretical progress, however, research on the community context of crime has yet to answer a longstanding question: Why do some socially organized neighborhoods nevertheless exhibit relatively high crime rates?

Evidence of stable, socially integrated, yet high-crime neighborhoods drawn largely from ethnographic work (Whyte 1937), has consistently posed a challenge to what was originally labeled the “social disorganization” perspective (Bursik 1988; Bursik & Grasmick 1993; Shaw & McKay [1942] 1969). Criticism has emanated largely from advocates of a competing theoretical approach emphasizing the role of subcultural orientations toward crime. In this view, the goals to which social organization is directed are conditioned by culture. Communities that cohere around the tolerance of criminal behavior may experience rapid diffusion of crime, calling into question the exclusively regulatory role of social organization. Though the subcultural perspective remains a dominant approach within urban and criminological theory (Fischer 1982; Matsueda 1988), to date, little evidence of racial, ethnic, or class variation in attitudes toward criminal behavior has emerged (Sampson & Jeglum-Bartusch 1998). Researchers, however, have undertaken few efforts to assess the effects of neighborhood based cultural orientations on crime.

Challenging both traditional social organizational and subcultural approaches, we develop an alternative model that highlights the tension between dense social networks and informal social control orientations in the neighborhood-level regulation of crime. Employing recent developments in social capital and collective efficacy theory (Sampson, Raudenbush & Earls 1997), as well as ethnographic research on the social context of crime (Pattillo 1998; Pattillo-McCoy 1999; Venkatesh 1997), we argue that dense social networks and increasingly broad-based reciprocated exchanges promote collective efficacy, or trust and solidarity among neighborhood residents combined with expectations for informal social control-related action. A substantial proportion of crimes, however, is committed by youth and other residents who are indigenous to, and socially embedded within, the neighborhoods in which they offend (Rose & Clear 1998). Thus, the breadth of network exchange and the obligations that accrue as a result may also represent an increasing stock of social capital available to offenders. In turn, these social resources may shield offenders from more severe forms of social control. This model of the process by which residents of urban neighborhoods achieve a *negotiated coexistence* acknowledges the potential for network density and reciprocated

exchange to both promote, and compete with, collective efforts at social control. In this view, the explanation for the conundrum of socially organized, high crime neighborhoods can be found in the paradoxically countervailing effects of social organization itself.

Focusing on the distribution of violent crime in a large urban setting, we test the negotiated coexistence model alongside two competing theories — the *systemic* reformulation of the traditional social disorganization model (Bursik & Grasmick 1993; Kasarda & Janowitz 1974; Kornhauser 1978), and the ecologically conditioned *cultural transmission* model (Anderson 1990; Wilson 1996). In addition to simultaneously testing social organizational and cultural transmission theories of urban violence, our research contributes to the literature on community context and crime by (1) investigating the unique and interactive effects of social networks and collective efficacy on the distribution of violent crime, and (2) demonstrating the potential for these dimensions of social organization to compete, with negative consequences for the control of crime. Our analyses employ the Project on Human Development in Chicago Neighborhoods Community Survey (PHDCN-CS) — a dataset specifically designed to investigate the social and cultural processes that underlie community self-regulatory capacity.

Theoretical Perspectives

We distinguish the theoretical approaches considered by focusing on their divergent expectations regarding the contribution of social networks and oppositional culture to neighborhood variations in violent crime rates. The systemic model, grounded in a vision of sociability as an unalloyed good, views network strength as unconditionally regulatory in its effect on crime. The cultural transmission model hypothesizes conditional effects of networks depending on the overall level of informal social control characterizing the neighborhood. At low levels of social control, network density is expected to facilitate the transmission of cultural orientations tolerant of deviant behavior, contributing to the dissemination of violent crime. In contrast, the negotiated coexistence model expects that networks will have countervailing effects on crime. While networks promote the willingness of neighborhood residents to engage in informal social control efforts, they simultaneously reduce the regulatory effectiveness of those efforts.

We begin by reviewing the traditional social disorganization model of the community level determinants of crime and its more recent systemic reformulation. We then consider the subcultural critique of community social organization models of crime and recent approaches that attempt to identify the social conditions under which alternative or criminogenic oppositional cultural orientations emerge. Finally, we describe the negotiated coexistence model in more detail, highlighting contemporary research on the relationship between networks, collective efficacy, and urban crime.

SOCIAL NETWORKS AS THE INFRASTRUCTURE OF SOCIAL CONTROL — THE SYSTEMIC MODEL

Scholars of urban life have generally agreed on the elemental role of social ties in the production of viable communities. Early urban research often stressed the role of anonymity and the weakness of social connection in the prevalence of “socially disorganized” urban neighborhoods (Park 1925). In one of social disorganization theory’s earliest statements, Shaw and McKay ([1942]1969) argued that three key neighborhood-level factors — poverty, residential instability, and ethnic heterogeneity — inhibit the formation and maintenance of neighbor networks and attenuate community-level social control of crime and other problem behaviors. In their research on Chicago neighborhoods, Shaw and McKay found that these structural factors continued to affect crime rates regardless of ethnic and racial population succession, suggesting that macro-level processes exert effects on crime independent of the characteristics of individuals who comprise disadvantaged neighborhoods.

Subsequent research in this tradition has more directly emphasized the foundation of effective community organization in urban social networks. In a seminal article, Kasarda and Janowitz (1974) developed the “systemic” model of community social dynamics in which extensive friendship and kinship bonds rooted in residential stability were hypothesized to strengthen neighborhood attachment (Kasarda & Janowitz 1974; Sampson 1988). Similarly, Kornhauser’s (1978) elaboration of Shaw and McKay’s ([1942]1969) social disorganization theory stressed the intermediary role of weak social bonds in the link between structural disadvantage and a community’s capacity for informal social control. These models are grounded in the assumption that urban social networks serve as the social infrastructure through which a community’s potential for self-regulation is realized.

In the systemic view, network density¹ and the frequency of local social interaction monotonically increase a community’s capacity for effective informal control of crime and, in its strongest statements, social organization *in support of* criminal activity is not sustainable. For example, in Kornhauser’s (1978) well-known critique of “cultural deviance” models, strong interpersonal and community ties are not compatible with oppositional or unconventional normative orientations that encourage crime. Accordingly, neighborhood networks should retain their regulatory potential across social conditions.

Current perspectives on urban social organization and crime, including collective efficacy theory, have drawn on the systemic model. Framing the dimensions of social organization as sources of social capital (Coleman 1988; Portes 1998), Sampson and colleagues (Sampson, Raudenbush & Earls 1997), have argued that the prevalence and density of kinship, friendship, and acquaintanceship networks and the level of participation in community-based organizations fosters the emergence of *collective efficacy*, or solidarity and mutual trust (social cohesion) among community residents combined with shared expectations for social control-

related action. Indeed, Sampson and associates (1997) found strong negative effects of collective efficacy on homicide rates within Chicago neighborhoods. Similarly, Rosenfeld, Messner & Baumer (2001) found that a measure of social capital (defined as the level of trust and civic engagement) was negatively associated with homicide rates within primary sampling units of the General Social Survey. A key distinction of the collective efficacy approach, however, is its recognition that dense social networks are not necessary to produce collective efficacy (Morenoff, Sampson & Raudenbush 2001; Sampson, Morenoff & Earls 1999) — a point on which we elaborate below.

While the traditional social disorganization and systemic perspectives have generated a considerable body of research, these approaches have been the target of criticism due to their inability to account for the persistence of crime in communities characterized by relatively dense networks and strong neighborhood attachments (Bursik & Grasmick 1993; Horowitz 1983; Suttles 1968; Whyte 1937). Moreover, the systemic focus on the role of networks in generating the conditions under which effective social control will emerge has received mixed empirical support (Bellair 1997; Clinard & Abbott 1976; Greenberg, Rohe & Williams 1982; Macoby, Johnson & Church 1958; Merry 1981; Simcha-Fagan & Schwartz 1986; Warner & Rountree 1997). Studies of the impact of dense or prevalent neighborhood social networks have not demonstrated consistent negative effects on crime rates across studies, nor have networks been shown to mediate a substantial proportion of the impact of structural characteristics like poverty on crime (Warner & Rountree 1997). These shortcomings have led some researchers to consider alternative mechanisms linking neighborhood structural disadvantage with crime, most notably the cultural transmission of criminal tendencies.

NETWORKS AS FACILITATORS OF CRIME—THE CULTURAL TRANSMISSION MODEL

Whyte's (1937) classic account of an Italian American community in Boston challenged the notion that social organization—represented by dense and active social ties and neighborhood attachment — consistently promotes the regulation of local crime. In contrast, Whyte argued, residents of North End were organized around an alternative or oppositional orientation that fostered certain types of criminal activity. More recently, Wilson (1996) has adopted an explicitly ecological and structural approach to the conditions under which cultural (or subcultural) transmission of criminal tendencies will occur. In Wilson's view, macro-economic shifts of the 1970s resulted in the emergence of extremely disadvantaged neighborhoods characterized by high levels of poverty and joblessness. Following a period of economic decline and population loss, these neighborhoods were left with relatively stable populations characterized by few skills and limited interaction with mainstream sources of influence.

Wilson argues that these communities are likely to be socially integrated but also characterized by diminished institutional viability and limited informal social

controls. In such contexts, social network ties are less likely to yield the benefits hypothesized in the traditional social disorganization and systemic approaches. Indeed, strong networks in disadvantaged and socially isolated communities that lack informal social control capacity may potentially *facilitate* the spread of problem behavior. The most vulnerable neighborhoods, Wilson states, are those in which “not only are children at risk because of the lack of informal social controls, they are also disadvantaged because the social interaction among neighbors tends to be confined to those whose skills, styles, orientations, and habits are not as conducive to promoting positive social outcomes” (Wilson 1996:63). Thus the effect of social networks on crime is hypothesized to be conditional in Wilson’s approach: networks in low social control neighborhoods serve to disseminate potentially detrimental behavioral orientations.

The cultural transmission model, then, incorporates the effect of oppositional culture as an outcome of weak informal social control and network-facilitated “contagion” of problem behaviors (Crane 1991). Behavioral orientations adopted in response to the absence of social control (e.g., using violence as a defensive posture [Anderson 1990]) are more efficiently disseminated in densely integrated neighborhoods. Ultimately, protocultural tolerance of deviant behavioral adaptations emerges, resulting in the further diffusion of violence, illicit drug use, early childbearing, and a host of other problem behaviors. Examples of the role of networks in this process are rife in the literature on street gangs (Venkatesh 1997). In disadvantaged contexts, gangs anchor and reinforce oppositional cultures through serving as substitutive families (Vigil 1988), education and socialization institutions (Moore 1978; Padilla 1992), and normative systems (Taylor 1990). Thus the positive effect of network density on crime in low social-control neighborhoods is hypothesized to work, in part, through the spread of attitudes tolerant of deviance.²

While variants of the cultural transmission perspective have been staples of the literature on urban crime for decades (Cloward & Ohlin 1960; Cohen 1955; Matsueda 1988; Miller 1958; Sutherland & Cressey 1966), surprisingly few studies have actually attempted to measure the presence of oppositional norms at the neighborhood level. Felson and colleagues’ study of the contextual effects of subcultural attitudes toward violence between schools found independent effects of school-level violence orientations controlling for individual level attitudes (Felson et al. 1994). In perhaps the most sophisticated analysis of neighborhood level variations in subcultural attitudes toward crime, Sampson and Jeglum-Bartusch (1998) analyzed 343 Chicago neighborhoods and found no evidence of a subculture of violence associated with race. However, evidence of “legal cynicism” in disadvantaged contexts was substantial, indicating that the classic subcultural focus on oppositional values may be misguided. Residents of disadvantaged neighborhoods were not more likely to hold normative orientations supportive or tolerant of criminals. Rather, they viewed conventional values with cynicism — as irrelevant and impractical in the context of extreme poverty and disadvantage. To date, the limited research on neighborhood-based subcultures has unearthed little

evidence in support of the expectation that disadvantaged communities exhibit dense networks supporting crime-tolerant normative orientations.

THE COUNTERVAILING EFFECTS OF SOCIAL CAPITAL ON CRIME — THE NEGOTIATED COEXISTENCE MODEL

We present an alternative approach that focuses on the role of social organization in both inhibiting and facilitating neighborhood crime. This negotiated coexistence model builds on the systemic insight that dense social networks, community attachments, and conventional norms contribute to the regulatory capacity of neighborhoods with respect to crime. We reject, however, both the systemic assumption that networks have exclusively crime inhibiting effects and the cultural transmission model's focus on the conditional role of networks in disseminating oppositional behavioral orientations. While recognizing that offenders within urban neighborhoods may have resource-generating social ties, we avoid attributing indigenous, self-sustaining, social organizational capacity to "criminal networks." Instead, offenders are hypothesized to acquire social resources as a byproduct of integration into mainstream social networks (Jankowski 1991; Venkatesh 1997).³ In this view, negotiated coexistence is a paradoxical phenomenon whereby offenders are simultaneously regulated by, and benefit from, conventional social organization. Below, we describe the key elements of social organization — networks and reciprocated exchange, solidarity, trust, and social control — from the standpoint of Portes's discussion of the sources of social capital. We then draw on insights from collective efficacy theory and recent community-based ethnographic research to highlight the potential for social networks to inhibit the regulatory potential of informal social control orientations.

Portes's (Portes 1998; Portes & Sensenbrenner 1993) classification of social capital types provides a useful conceptual framework with which to articulate the dynamics of negotiated coexistence. First, *bounded solidarity* describes a collective sense of identity and, in the case of a neighborhood, locality-based attachments that may precipitate altruistic orientations toward fellow neighborhood residents, including the inclination both to refrain from victimizing other residents and to intervene on their behalf if threatened with victimization. Second, *enforceable trust* may encourage positive neighborhood-based action that is contingent upon some form of compensation by the collectivity — e.g., a neighborhood resident intervenes on behalf of another threatened with victimization with the expectation that he may benefit from the approval of the community and from similar actions by unspecified neighbors on his behalf in the future. Third, *reciprocated exchanges* (e.g., of information, favors, or material assistance), lead to the accumulation of "social chits" between actors — obligations incurred without specification of the form or timing of repayment.

Portes draws a useful distinction between social capital based on membership in a common social structure and that emerging from direct ties. Neither bounded

solidarity nor enforceable trust require direct ties between donors and recipients and may be seen as examples of social capital emerging out of group membership. In contrast, reciprocated exchanges require interaction between parties to the exchange. The distinction becomes relevant in the discussion of two basic functions of social capital in the context of the neighborhood: (1) as a source of social control, and (2) as a source of network-mediated benefits. Social capital that contributes to neighborhood-based social control typically arises out of bounded solidarity and enforceable trust (Portes 1998). Sampson and colleagues' (1997) concept of collective efficacy posits a similar link between solidarity and mutual trust and the resulting shared expectations for prosocial action considered crucial for the self-regulatory capacity of a community.

Consistent with the systemic emphasis on the regulatory role of social ties, the negotiated coexistence model expects that network-mediated exchanges will contribute to the development of solidarity and mutual trust at the community level. Yet, while network interaction and reciprocated exchange enhance cohesion and informal social control orientations, they simultaneously embed neighborhood residents in increasingly extensive networks of mutual obligation (Rose & Clear 1998). As networks and exchange increase in prevalence, tensions with social control orientations may arise. Portes, for instance, notes that "social capital in the form of social control may clash with network-mediated benefits, if the latter consists precisely of the ability to bypass existing norms" (Portes 1998:15). With respect to criminal activity, the density of ties and frequency of exchange in some neighborhoods results in more extensive integration of residents who participate in crime into existing community-based social networks. The resulting accumulation of social capital for offenders may limit social control efforts directed against them, resulting in diminished regulatory capacity at the community level.

Dense networks and reciprocated exchange between conventional residents and offenders may contribute to this outcome in two ways. First, offenders may indirectly benefit from existing social capital generated by reciprocated exchanges between parties to which they are tied. Adults who know neighborhood youth, for instance, are also likely to know their parents, relatives, and close adult associates. Interactions and exchange between these neighborhood adults increase outstanding obligations. In an insightful ethnographic analysis of "Groveland," a middle-class black community in Chicago, Pattillo (Pattillo 1998; Pattillo-McCoy 1999) describes the process by which increasingly dense and interconnected social networks have countervailing influence on the social control of crime. While Groveland's residents maintained strong informal networks and felt deeply attached to their community, the strength of social ties among neighbors inhibited more severe forms of social control related-action on behalf of the collectivity. As one Groveland resident stated after having witnessed criminal activity by a local adolescent: "I didn't wanna give this young man's name [to the police] because his mama is such a sweet lady" (Pattillo 1998:765). In this case, the adolescent offender benefited indirectly (and unwittingly) from the network ties of his mother.

The witnessing resident recognized an outstanding obligation by not involving formal authorities in the transgressions of her neighbor's son. The decision to avoid calling the police may even be construed as pro-social for the offending adolescent to the extent that limiting his exposure to the criminal justice system may be perceived to (and may actually [Sampson & Laub 1993]) reduce his long-term rate of offending. Nevertheless, the continued presence of the adolescent in the community increases the immediate vulnerability of the neighborhood to subsequent offenses. Thus dense networks may mute the regulatory effect of social control efforts, in part by reducing the tendency to involve formal authorities when an offense is observed.

Second, offenders may generate social capital directly (though not necessarily strategically) by ongoing exchanges with conventional members of the community. In a study of active gang members, Decker and Van Winkle (1996) found that ties to family and children were common and income was generated both through gang activities as well as, for some, legitimate employment. Findings from other studies reinforce the notion that offenders may have multiple sources of income and provide financial support to kin as well as to other members of the community (MaCoun and Reuter 1991; Sullivan 1989). Venkatesh's (1997) analysis of the interactional dynamics characterizing the "Blackstone" community's gang members and conventional residents also highlights the role of noneconomic benefits such as security in the production of social capital. Gang leaders may promote such exchanges on a larger scale, as well. Pattillo-McCoy (1999) describes the efforts of local gang members to generate good will among Groveland's residents by sponsoring neighborhood block parties and other local gatherings as well as deploying gang members as security at public events. Both smaller scale exchanges and those directed at larger groups may result in the accumulation of social capital for offenders.⁴

Acknowledging the questionable role of networks in the regulation of neighborhood crime, collective efficacy theorists (Sampson, Morenoff & Earls 1999; Morenoff, Sampson & Raudenbush 2001) have moved away from a narrow focus on the strength of network ties to emphasize the goal-oriented mobilization capacities of communities. Morenoff, Sampson, and Raudenbush (2001) find that while friendship and kinship ties among neighborhood residents positively predict levels of collective efficacy in Chicago neighborhoods, they find no direct effect of networks on homicide rates once the level of neighborhood collective efficacy has been controlled. In fact, they argue, collective efficacy has multiple determinants, does not require the presence of dense and interconnected neighbor networks, and, under some conditions, may be compromised by such networks (Morenoff, Sampson & Raudenbush 2001; Sampson, Morenoff & Earls 1999). Rooted in collective efficacy theory's emphasis on the conceptual decoupling of networks and informal social control, the negotiated coexistence model can be seen as an attempt to articulate the specific mechanism by which the potential downside of networks is manifest.

In the analyses below, we extend previous research calling into question the regulatory role of networks by considering specific hypotheses regarding network effects on violent crime drawn from the three perspectives previously described. The systemic emphasis on the unconditional regulatory effect of network density on crime is contrasted with the cultural transmission model's focus on the conditionally positive effect of networks on crime in contexts characterized by low levels of informal social control. Tests of the latter approach also consider the independent role of deviance tolerance on violent crime. Both expectations are challenged by the negotiated coexistence hypothesis that networks have countervailing effects on crime, potentially contributing to the overall level of collective efficacy while also muting its regulatory impact. Although counterintuitive from the standpoint of the traditional social disorganization and systemic perspectives, the negotiated coexistence model offers an explanation for the paradox represented by network-integrated, high crime neighborhoods.

Data and Variables

We combine 1990 decennial census information with data from the 1994-95 Project on Human Development in Chicago Neighborhoods Community Survey (PHDCN-CS) and the 1991-93 and 1995-97 Chicago Homicide Data. The PHDCN-CS is a probability sample of 8,782 residents of Chicago focusing on respondent assessments of the communities in which they live. The PHDCN-CS combined 865 census tracts into 343 neighborhood clusters (NCs) that maintained relative population homogeneity with respect to racial/ethnic, socioeconomic, housing, and family-structure characteristics (NCs average roughly 8,000 people).⁵ NCs were also defined on the basis of ecologically meaningful boundaries such as railroad tracks and freeways. The three-stage sampling strategy selected city blocks within NCs, dwelling units within blocks, and respondents (one adult, age 18 or over, per household) within dwelling units. The PHDCN-CS sampling strategy ensured that the number of cases collected per cluster (a mean of about 25) would be sufficient to estimate neighborhood characteristics based on aggregated individual level data. The PHDCN-CS achieved a final response rate of 75%.

DEPENDENT MEASURES

To assess the sensitivity of our results to specification of the dependent variable, we consider two neighborhood-based violence outcomes in the analyses — a measure of violent victimization in the respondent's household and official data on homicide counts. Violent victimization was assessed by asking whether the respondent or any member of the respondent's household had been victimized anywhere in the neighborhood (dichotomous response).⁶ Three-year log homicide rates were constructed from official counts of homicides for 1995-97 taken from the Chicago

Homicide Data.⁷ The two violence measures capture the same time point (1995) but add count data from 1996–97 in the case of homicide in order to minimize the influence of measurement error and volatility in the year-to-year rates of this rare event. The procedure for constructing each of the neighborhood level outcome measures is described in more detail below (see Analytic Strategy).

INDEPENDENT MEASURES

We constructed measures of neighborhood level social composition from the 1990 decennial census. Scale definitions are based on prior theory and research on the structural antecedents of violent crime (Land, McCall & Cohen 1990; Morenoff, Sampson & Raudenbush 2001) and the ecological concentration of economically disadvantaged, African American, and female-headed families (Massey & Denton 1993; Wilson 1987). The first scale — *concentrated disadvantage* — is defined by the percent below the poverty line, receiving public assistance, unemployed, under age 18, African American, and the percent of families headed by a female. A second scale — *residential stability* — is defined by the percent living in the same residence since 1985 and the percent of homes occupied by owners. A third scale — *immigrant concentration* — is defined by the percent Latino and the percent foreign born. A focus on the presence of Latino and immigrant populations captures a major source of ethnic heterogeneity in Chicago neighborhoods. An alpha-scoring factor analysis with an oblique rotation produces a three-factor solution corresponding to the hypothesized latent structural dimensions (factor loadings for component variables are above .70 with the exception of the percent African American loading on the concentrated disadvantage factor [.60]⁸). The analysis employs factor scores from the alpha-scoring analysis; an alternative principal components approach, however, yields the same pattern of effects in multivariate analyses of violence outcomes. The concentrated disadvantage scale included in the analyses below is the natural log of the factor score (addressing nonlinearity in the association between the untransformed disadvantage index and the homicide rate).

Collective efficacy is operationalized through combining measures of social capital as represented by solidarity and mutual trust (social cohesion — Portes 1998) and shared expectations for informal social control efforts (Sampson, Raudenbush & Earls 1997). The social cohesion scale is constructed from a cluster of conceptually related items from the PHDCN-CS measuring the respondent's level of agreement with the following statements: (1) "People around here are willing to help their neighbors," (2) "This is a close-knit neighborhood," (3) "People in this neighborhood can be trusted," (4) "People in this neighborhood generally don't get along with each other," and (5) "People in this neighborhood do not share the same values" (the latter two items were reverse coded). Responses were given on a five-point scale from "strongly disagree" to "strongly agree." The informal social control

scale is constructed from respondent assessments of the likelihood that their neighbors could be counted on to intervene if (1) "children were skipping school and hanging out on a street corner," (2) "children were spray-painting graffiti on a local building," (3) children were "showing disrespect to an adult," (4) "There was a fight in front of your house and someone was being beaten or threatened," or (5) "The fire station closest to your home was going to be closed down by the city" due to budget cuts. Responses were given on a five-point scale from "very unlikely" to "very likely."

The *social network interaction/reciprocated exchange* scale measures the frequency of interaction and network-mediated exchange (Portes 1998) among neighbors. In contrast to the generalized assessments of trust, solidarity, and shared expectations for informal social control included in the measure of collective efficacy, the network interaction/exchange scale is designed to capture *actual ties* between neighborhood residents, consistent with Portes' (1998) conceptualization. Moreover, given the inherent difficulty of defining a stable population of "offenders" and the relevance of second- and higher order ties (e.g., the network ties of an offending adolescent's parents or caregivers), we view a global neighborhood measure of network interaction and reciprocated exchange as an appropriate operationalization strategy. Respondents were asked "how often do you and people in this neighborhood" (1) "Have parties or other get-togethers where other people in the neighborhood are invited," (2) "Visit in each other's homes or on the street," (3) "Ask each other advice about personal things such as child rearing or job openings," and (4) "Do favors for each other?" Response categories were "never," "rarely," "sometimes," and "often."

Tolerance for deviance is measured with an eight-item scale. Respondents were asked their opinions regarding how wrong it is for teenagers around thirteen and nineteen years of age to smoke cigarettes, use marijuana, drink alcohol, and get into fist fights. Responses were given on a five-point scale from "extremely wrong" to "not wrong at all." We also include a control for *population density* (population per square mile), which has been shown to be negatively associated with homicide in Chicago neighborhoods (Morenoff, Sampson & Raudenbush 2001), perhaps capturing the experience of depopulation characterizing some of the most disadvantaged neighborhoods in Chicago (Wilson 1987). Alternatively, more densely populated areas may offer more opportunities for victimization (Mayhew & Levinger 1976), suggesting the possibility of positive effects of population density on the experience of nonlethal violent victimization. We take the natural log of the population density divided by 10,000. Finally, we include the *lagged homicide rate* (1991–93), in order to address the possibility of endogeneity in the association between measures of social organization and violence.

TABLE 1: Maximum Likelihood Spatial Regressions of Empirical Bayes Neighborhood Log Odds of Violent Victimization on Neighborhood Structure, Social Organization, and Deviance Tolerance

	Violent Victimization						
	1	2	3	4	5	6	7
Independent variables							
Logged concentrated disadvantage	.061** (.016)	.020 (.027)	.020 (.027)	-.007 (.027)	-.010 (.026)	-.009 (.026)	-.009 (.027)
Residential stability	-.036** (.012)	-.017 (.015)	-.018 (.015)	.003 (.015)	.002 (.015)	.000 (.015)	-.002 (.015)
Immigrant concentration	.021 (.012)	.029* (.014)	.029* (.014)	.025 (.014)	.023 (.014)	.022 (.014)	.024 (.014)
Logged population density		.060 (.032)	.058 (.032)	.022 (.033)	.019 (.032)	.019 (.032)	.017 (.033)
EB Log homicide rate, 1991-93		.039 (.022)	.039 (.022)	.006 (.023)	.004 (.023)	.003 (.023)	.008 (.023)
Network interaction/ reciprocated exchange			-.003 (.012)	.026* (.013)	.027* (.013)	.028* (.014)	
Collective efficacy				-.087** (.020)	-.097** (.020)	-.098** (.020)	-.104** (.021)
Network interaction/exchange * Collective efficacy					.026** (.010)	.026** (.010)	
High network interaction/exchange (above 70th percentile)							.029 (.028)
High network interaction/exchange * Collective efficacy							.059* (.025)
Deviance tolerance						-.004 (.011)	-.001 (.012)
Spatial lag	.217** (.080)	.192* (.080)	.190* (.080)	.172* (.080)	.170* (.079)	.167* (.079)	.160* (.080)
Constant	-1.530** (.156)	-1.778** (.188)	-1.778** (.188)	-1.639** (.191)	-1.644** (.190)	-1.645** (.190)	-1.684** (.191)
R ² (N = 343)	.114	.133	.134	.180	.200	.205	.191

Note: Standard errors are in parentheses.

* p < .05 ** p < .01 (two-tailed tests)

Analytic Strategy

The analyses to follow employ hierarchical modeling (HM) techniques (Bryk & Raudenbush 1992; Snijders & Bosker 1999) to construct survey-based indicators of neighborhood social organization, deviance tolerance, and violence. In turn, census-based structural measures and HM-constructed survey-based measures are included in spatial lag models of the two violence outcomes at the neighborhood level. Following Sampson, Raudenbush, and Earls (1997), measures of collective efficacy and network interaction/reciprocated exchange are constructed using empirical Bayes estimates from three-level linear item response models (described below). Neighborhood-level reliabilities for the collective efficacy and network interaction/reciprocated exchange scales are .85 and .61, respectively.⁹

Because responses to items measuring tolerance of deviance are skewed, we use a three-level rating scale analysis (Raudenbush & Bryk 2002; Wright & Masters 1982). Below, we describe the three-level rating scale model of deviance tolerance as an example of the multilevel item response approach. The model assumes that responses to the scale items are ordered across age groups and, within age groups, across deviant acts. That is, individuals who tolerate any deviant acts for 13 year olds are likely to tolerate all acts for 19 year olds. Similarly, within age groups, those who tolerate smoking marijuana and drinking are likely also to tolerate smoking cigarettes.¹⁰ The rating scale approach takes into account both the tolerance level represented by each item as well as the tolerance level represented by an endorsement of any given response category within each item. Specifically, at level one (within individuals), the eight items comprising the deviance tolerance scale are modeled as follows:

$$\ln\left(\frac{\phi_{mijk}}{1 - \phi_{mijk}}\right) = \pi_{jk} + \sum_{p=1}^7 \alpha_p D_{pijk} + \sum_{m=1}^{M-1} \delta_m$$

where ϕ_{mijk} is the probability that response i of person j in neighborhood k is at response category m or below, π_{jk} is the intercept, D_{pijk} is a dummy variable taking on a value of 1 if response i is to item p in the eight-item deviance tolerance scale and 0 otherwise (one item is omitted to identify the model), α_p is the “tolerance level” represented by item p in the scale, and δ_m is a threshold parameter separating categories $m - 1$ and m . Threshold parameters δ_m are assumed fixed across items and respondents. The level one model takes into account missing data: respondents who provided answers to any of the scale items contributed information to the analysis, though HM weights cases with full information more heavily.

At level two (between individuals), randomly varying respondent-specific latent deviance tolerance scores are adjusted for individual level characteristics as follows:

$$\pi_{jk} = \beta_{0k} + \sum_{q=1}^{12} \beta_q X_{qjk} + r_{jk} \qquad r_{jk} \sim N(0, \sigma^2)$$

where β_{0k} is the intercept, X_{qjk} is the value of person-level predictor q for individual j in neighborhood k , β_q is the effect of q on individual j 's expected score, and r_{jk} is an independently, normally distributed error term with variance σ^2 . The model adjusts for a number of covariates including gender, age, race/ethnicity (black, Latino vs. white), education, employment status (employed vs. not employed), marital status (never married, other vs. married), homeownership, years resident in the neighborhood, and number of moves in the last five years. Thus neighborhood level deviance tolerance scores are purged of their association with key compositional features of Chicago communities.

Finally, adjusted neighborhood intercepts are modeled as follows:

$$\beta_{0k} = \gamma_{00} + u_{0k} \quad u_{0k} \sim N(0, \tau_{00})$$

where γ_{00} is the grand mean and u_{0k} is a level-three random effect. The neighborhood level deviance tolerance scale score ultimately included as an independent variable in spatial lag models of violence outcomes is the standardized empirical Bayes (EB) residual from the level three model. EB estimates take into account differences in the reliability with which β_{0k} has been estimated by regressing neighborhood level ordinary least-squares residuals toward zero by a factor proportional to the unreliability with which they have been estimated (Raudenbush & Bryk 2002).¹¹ The neighborhood-level reliability of the deviance tolerance scale was .61.

The violent victimization scale is based on a two-level logit model. In addition to individual level controls described above, we include a measure of the number of the respondent's kin who are residing in the neighborhood in the between-individual model of self-reported household victimization as a proxy for household size (since larger households are more likely to result in an endorsement of the victimization item). The scale used in multivariate analyses to follow is the adjusted EB neighborhood log odds of violent victimization. Our measure of homicide is the EB estimate of the neighborhood log homicide rate per 100,000 population generated from a poisson model of the three-year homicide count (Morenoff, Sampson & Raudenbush 2001; Raudenbush & Bryk 2002). The EB estimate adjusts log homicide rates for skewness and is appropriate for spatial regression techniques.¹² We use a similar strategy to construct the lagged 1991–93 homicide rate.

SPATIAL ANALYSES

An often-overlooked consideration in analyses of neighborhood phenomena is the spatial context of the study area. The data used in the analyses are drawn from 343 contiguous neighborhood clusters based on ecologically meaningful but nevertheless artificially imposed boundaries. Moreover, neighborhoods with similar characteristics tend to cluster together — a phenomenon that may indicate spatially based dependencies.

Among the causes of spatial dependency are incorrect specification of the boundaries of areal units and, perhaps more importantly, the presence of spillover effects or spatial externalities between jurisdictions (Anselin 1988). As an example, consider two areal units with identical independent variable characteristics. The dependent variable is some socioeconomic phenomenon. The realized value of this socioeconomic variable is a function of its neighboring jurisdictions' outcomes. Thus depending on the location of the two areal units, the values of the dependent variable may be quite different, yet ordinary least squares (OLS) estimation of the effects of independent variables will not account for this difference. Cross sectional OLS estimation that ignores the presence of true spatial dependence risks biased estimation of standard errors *as well as* regression parameters. Based on prior research establishing strong spatial dependencies in analyses of homicide (Baller et al. 2001; Morenoff, Sampson & Raudenbush 2001) we incorporate spatial effects into our theoretical and empirical approach. Consistent with a "spatial vulnerability" perspective (Sampson, Morenoff & Earls 1999), we expect positive spatial dependency such that crime is observed to diffuse across space within a relatively contained geographical radius (see also Pattillo-McCoy 1999).

To test for the presence of residual spatial autocorrelation, we calculated Moran I-statistics for nonspatial OLS regressions of EB self-reported victimization and log homicide rates using a first-order contiguity weight matrix.¹³ The Moran I-statistics for OLS estimations of fully specified models (model 6 from Tables 1 and 2 were statistically significant for both outcomes and offer strong evidence of spatial autocorrelation for these dependent variables (marginal probability < .0001 across outcomes). Accordingly, models presented below are estimated using a mixed regressive-spatial autoregressive specification,¹⁴ given by:

$$y = \rho W y + \beta X + \varepsilon \qquad \varepsilon \sim N(0, \sigma^2)$$

where y is an $N \times 1$ vector of observations on the outcome measure, W is a first order contiguity weight matrix, X is an $N \times K$ matrix of independent variables, β is a $K \times 1$ vector of regression coefficients, ρ is the spatial lag operator, and ε is a vector of independent and identically distributed error terms with 0 means and constant variances. As noted above, the results presented below employ the spatial lag specification described to regress the two HM adjusted violence outcomes on census-based structural indicators and HM adjusted survey-based measures. Bivariate correlations among variables used in the analysis are reported in Appendix A.

Results

The core analyses of the article examine the impact of neighborhood level structural characteristics (concentrated disadvantage, residential stability, and immigrant concentration), social organizational characteristics (collective efficacy and social network interaction/reciprocated exchange), deviance tolerance, and controls on

measures of neighborhood violence. The results of these analyses are presented in Tables 1 and 2.

Table 1 reports the results of spatial lag models of the EB neighborhood log odds of violent victimization. Model 1 includes the three structural predictors and indicates that concentrated disadvantage has a positive effect on victimization while residential stability is negatively associated with this outcome. The effects parallel other investigations of the association between these neighborhood characteristics and victimization (Sampson, Raudenbush & Earls 1997) and, with the exception of the immigrant concentration effect, are consistent with the expectations of the systemic model.

The analyses offer strong evidence of spatial dependence, suggesting the appropriateness of the spatial lag specification. The sign of the spatial lag parameter is also important to note. A positive ρ is consistent with a diffusion hypothesis. On the other hand, a negative ρ indicates that the process under study is concentrating in space. Consistent with the spatial vulnerability hypothesis, the spatial lag parameter for the analyses of victimization is positive.¹⁵ These results suggest that the aggregate victimization of contiguous neighborhoods (and their independent variable characteristics) contribute to levels of violence in the focal neighborhood. Moreover, the "spatial multiplier" process implied by the spatial autoregressive model incorporates progressively diminishing effects of the characteristics of neighbors of neighbors as well (Anselin 1988).

Though neither population density nor the prior homicide rate achieve the conventional level of significance in model 2, they are marginally significant ($p < .10$) and render insignificant the effects of disadvantage and stability (immigrant concentration, however, moves across the significance threshold in model 2). Model 3 adds the network interaction/reciprocated exchange measure.¹⁶ Contrary to the expectations of the systemic model, the main effect of network interaction/exchange on victimization in model 3 is not significant. Although introduction of the network interaction/exchange measure in model 3 results in a negative but insignificant coefficient, model 4 reveals a negative effect of collective efficacy and a *positive* and significant network effect on the likelihood of victimization. The positive effect of network interaction/exchange departs from the systemic model's expectation that networks consistently serve as a social organizational deterrent to crime.

The main effect of network interaction/exchange, however, is potentially consistent with both the cultural transmission model (networks as conduits for alternative/oppositional behavior norms) and the negotiated coexistence model (network interaction/exchange as social capital that may clash with the social control objectives of collective efficacy). In order to adjudicate between these two hypotheses, models 5 through 7 explore key interactions intended to capture the social processes highlighted by the theories considered. Model 5 enters the (product term) interaction between network interaction/exchange and collective efficacy. Recall that the cultural transmission model expects that networks will be

increasingly positively associated with crime at lower levels of collective efficacy. On the other hand, the negotiated coexistence model expects that the magnitude of the negative association between collective efficacy and crime will diminish as network interaction/exchange increase.

The coefficient for the interaction term reveals a positive effect. First, interpreting the interaction from the standpoint of the cultural transmission model (i.e., the conditional effects of networks at varying levels of collective efficacy) indicates that networks are positively associated with crime as collective efficacy *increases* — counter to the expectations of the cultural transmission model. The network effect ranges from $-.02$ at two standard deviations below the mean on the collective efficacy scale ($p > .05$) to $.08$ at two standard deviations above the mean ($p < .05$). The network effect becomes significant at the .05 level when collective efficacy is roughly at its mean. Examining the effect of collective efficacy at low (-2 standard deviations) and high ($+2$ standard deviations) scale values of network interaction/exchange (from the standpoint of the negotiated coexistence model), we find that collective efficacy ranges from $-.15$ to $-.05$ ($p < .05$). Thus as network interaction/exchange increases, the regulatory effect of collective efficacy on victimization declines, consistent with the negotiated coexistence model. It is important to note, however, that collective efficacy remains a significant negative predictor of victimization across the range of network interaction/exchange values considered.

Including the measure of deviance tolerance in model 6 reveals an insignificant coefficient. In order to test the hypothesis that the effects of deviance tolerance are enhanced in disadvantaged communities, we independently assessed interactions between deviance tolerance and collective efficacy, network interaction/exchange, and concentrated disadvantage.¹⁷ None of the interaction terms we examined achieved significance.

Finally, we estimate the average effect of collective efficacy above and below the 70th percentile on the network interaction/exchange scale as a check on the interpretation of the linear interaction presented in models 5 and 6. The dummy variable interaction once again reveals the dampening effect of network interaction/exchange on the regulatory effect of collective efficacy. While a one standard deviation increase in collective efficacy results in a .10 reduction in the log odds of victimization in lower network interaction/exchange neighborhoods, this effect is reduced by 57% in higher network interaction/exchange neighborhoods: a substantial compromise in the effectiveness of informal social control. Thus, for violent victimization in Chicago neighborhoods, the pattern of results with respect to the effects of networks and collective efficacy appear consistent with the negotiated coexistence model.

Table 2 reports the results of spatial lag models of EB estimates of the 1995–97 log homicide rate in Chicago neighborhoods. Effects of structural characteristics in model 1 are only partially consistent with the systemic model. While concentrated disadvantage is positively associated with homicide, residential stability

TABLE 2: Maximum Likelihood Spatial Regressions of Empirical Bayes Log Homicide Rate on Neighborhood Structure, Social Organization, and Deviance Tolerance

	Homicide Rate						
	1	2	3	4	5	6	7
Independent variables							
Logged concentrated disadvantage	.527** (.046)	.303** (.055)	.304** (.055)	.279** (.056)	.277** (.056)	.277** (.056)	.280** (.056)
Residential stability	-.030 (.025)	-.017 (.028)	-.021 (.028)	.002 (.030)	.000 (.030)	.001 (.031)	-.002 (.030)
Immigrant concentration	-.109** (.028)	-.012 (.028)	-.017 (.028)	-.022 (.028)	-.023 (.028)	-.022 (.029)	-.023 (.028)
Logged population density		-.184** (.063)	-.202** (.064)	-.240** (.066)	-.242** (.066)	-.242** (.066)	-.025** (.065)
EB Log homicide rate, 1991-93		.350** (.046)	.343** (.046)	.314** (.048)	.313** (.048)	.313** (.049)	.310** (.048)
Network interaction/ reciprocated exchange			-.041 (.023)	-.011 (.027)	-.010 (.027)	-.010 (.027)	
Collective efficacy				-.090* (.040)	-.097* (.041)	-.097* (.041)	-.130** (.043)
Network interaction/exchange* Collective efficacy					.017 (.020)	.017 (.020)	
High interaction/exchange (above 70th percentile)							-.063 (.056)
High interaction/exchange* Collective efficacy							.103* (.049)
Deviance tolerance						.002 (.024)	.003 (.024)
Spatial lag	.482** (.051)	.327** (.053)	.327** (.053)	.314** (.053)	.314** (.053)	.315** (.053)	.318** (.052)
Constant	1.991** (.206)	1.355** (.227)	1.399** (.227)	1.613** (.244)	1.611** (.244)	1.608** (.246)	1.624** (.242)
R ²	.678	.736	.738	.742	.743	.743	.746

(N = 343)

Notes: Standard errors are in parantheses.

* p < .05 ** p < .01 (two-tailed tests)

is not a significant predictor of this outcome and immigrant concentration has an unexpected negative effect. The latter effect is contrary to the systemic model expectation but nevertheless consistent with prior research (Morenoff, Sampson & Raudenbush 2001; Sampson, Raudenbush & Earls 1997). As with violent victimization, neighborhood homicide rates are spatially dependent — an effect that holds across model specifications. In model 2, population density is negatively and significantly associated with homicide while the lagged 1991–93 homicide rate is positively associated with 1995–97 homicide. Urban research has emphasized neighborhood population decline as an indicator of disadvantage (Wilson 1987) suggesting that sparsely populated neighborhoods might be more likely to exhibit high rates of violent crime.

In model 3, the coefficient for network interaction/exchange is negative but does not achieve significance at the conventional level. The interaction between collective efficacy and network interaction/exchange in model 5 indicates that networks are not a significant predictor of homicide rates. The effect of collective efficacy ranges from $-.13$ ($p < .05$) at 2 standard deviations below the mean on the network interaction/exchange scale to $-.06$ ($p > .05$) at two standard deviations above the mean. At high levels of network interaction/exchange, collective efficacy exerts a reduced, and no longer statistically significant regulatory effect on homicide (losing significance at the .05 level at about 1.3 standard deviations above the mean on the network interaction/exchange scale). Tests of the dummy variable interaction in model 7 reveal a similar, but even more pronounced, pattern to that observed for violent victimization. While a one standard deviation increase in collective efficacy results in a .13 reduction in the EB log homicide rate in lower network interaction/exchange neighborhoods, this effect is reduced by 79% and rendered insignificant in higher network interaction/exchange neighborhoods. Thus high levels of network interaction and reciprocated exchange nearly eliminate the regulatory effect of collective efficacy on homicide.¹⁸

Figure 1 graphically represents the conditional effects of collective efficacy at high and lower levels of network interaction and reciprocated exchange (based on model 7 from Tables 1 and 2). The exponentiated coefficients for collective efficacy can be interpreted as the percentage change in the EB adjusted odds of violent victimization and the EB homicide rate across neighborhoods. For violent victimization, a standard deviation increase in collective efficacy results in a 10% reduction in the odds of violent victimization in lower network interaction/exchange neighborhoods but only a 4% reduction in high network interaction/exchange neighborhoods. For homicide, a one standard deviation increase in collective efficacy results in a 12% reduction in lower network interaction/exchange neighborhoods by comparison with a 3% reduction in high network interaction/exchange neighborhoods. Thus the conditional effects of collective efficacy by level of network interaction and reciprocated exchange are consistent for the two measures of violent crime.

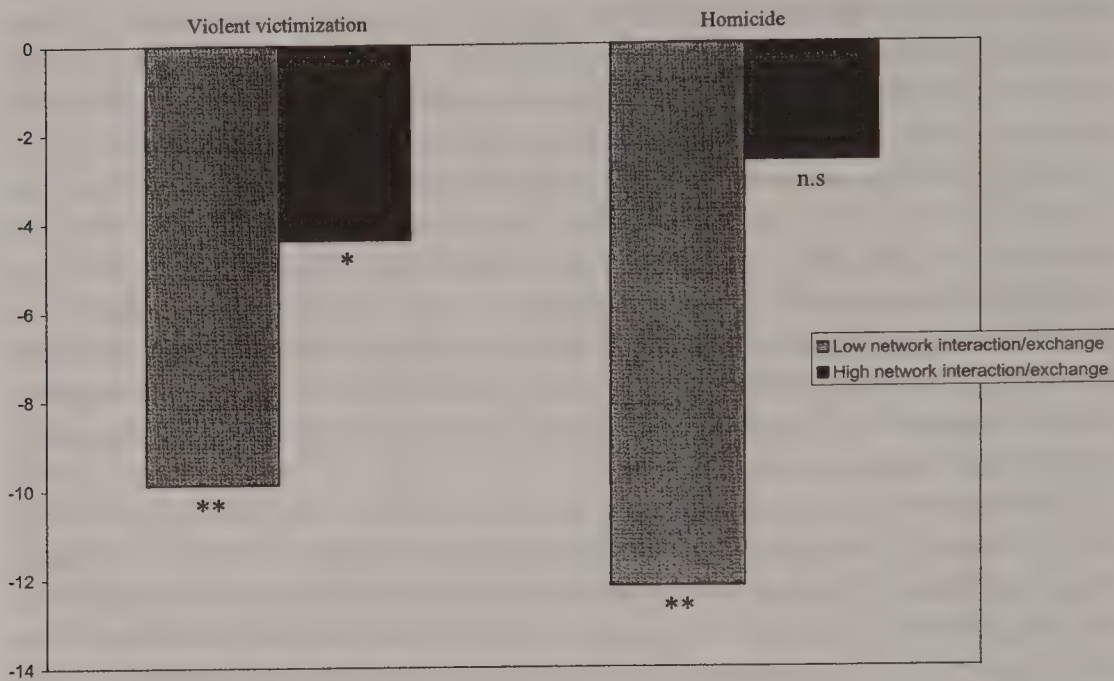
Discussion

The challenge to the social disorganization and subsequent systemic perspectives posed by socially organized, high crime neighborhoods has led to a longstanding debate over the sources of neighborhood influence on crime. The systemic emphasis on the relative strength and prevalence of social ties as a pre-requisite for effective informal social control is set against a cultural transmission model highlighting the role of emergent oppositional and crime-tolerant normative orientations. In the latter approach, social organization is malleable and can be enlisted on behalf of cultural goals that vary across communities (Bursik & Grasmick 1993). While embedded in the former trajectory of theory and research, the approach we offer employs emerging social capital theory (Portes 1998) to highlight the potentially countervailing influence of distinct dimensions of community social organization. In taking this approach, we identify the mechanism producing the paradoxically organized, high crime neighborhood without assigning such communities disadvantage-induced oppositional cultural orientations for which little evidence exists.

Specifically, we develop a model of the process by which two forms of social capital interact in their influence on neighborhood crime rates. Drawing on Portes's conceptualization of social capital types, we emphasize the potential for competition between social capital as network-mediated exchange and social capital as solidarity, trust, and shared expectations for prosocial action (collective efficacy), with significant consequences for the regulatory capacity of communities with respect to crime. Rooted in the observation that offenders are often residents of the neighborhoods in which they engage in delinquency and crime, we highlight the role of social networks and reciprocated exchanges in integrating residents who participate in criminal activity. While networks promote neighborhood cohesion and informal social control orientations, they also generate network-based social capital for offenders that may inhibit more consequential forms of social control.

We tested this negotiated coexistence approach against competing systemic and cultural transmission perspectives. The negotiated coexistence model is consistent with the systemic emphasis on the role of social ties in fostering neighborhood attachments and the willingness to engage in informal social control. Yet, by incorporating the potential for dense networks to simultaneously compete with social control orientations, the negotiated coexistence model moves beyond the systemic assumption of the inherent beneficence of extensive network connections to a more nuanced understanding of the complex and paradoxical relationship between social ties and the achievement of community goals. In this sense, the model draws on and elaborates the conceptual decoupling of network strength and community mobilization capacity fundamental to recent developments in collective efficacy theory (Morenoff, Sampson & Raudenbush 2001; Sampson, Morenoff & Earls 1999).

FIGURE 1: Percent Change in Odds of Violent Victimization and Homicide Rate per Standard Deviation Increase in Collective Efficacy — At High and Low Levels of Network Interaction/Exchange



* $p < .05$ ** $p < .01$ n.s. Not significant

Tests of the three models considered offered strong and consistent support for the negotiated coexistence model. Spatial lag models of two measures of violence demonstrated powerful negative effects of collective efficacy. However, the main effect of networks, controlling for collective efficacy, was positive and significant in the case of victimization and, more importantly, the interaction between network interaction/ exchange and collective efficacy was positive and significant for both outcomes. Thus, as social network interaction and reciprocated exchange increase, the negative effect of collective efficacy on violence declines in magnitude.

While consistent with the expectations of the negotiated coexistence model, the interaction between collective efficacy and network interaction/exchange challenges both the traditional systemic and cultural transmission approaches. With respect to the systemic approach, these analyses indicate that measures of network interaction and exchange alone do not effectively capture neighborhood-level regulatory capacity. Models of the two violence outcomes revealed insignificant main effects of networks when considered without a control for collective efficacy. These findings recall the mixed effects of networks on crime demonstrated in recent research on the role of social ties in urban social control, calling into question

systemic assumptions (Warner & Rountree 1997). Studies of neighborhood social organization thus cannot assume that social networks serve as a proxy for community-level mobilization capacity with respect to the control of violent crime.

Research findings attributing neighborhood-level informal social control effects to *weak* network ties (Baumgartner 1988; Bellair 1997) are potentially consistent with the findings reported here. Bellair (1997), for instance, found that the prevalence of frequent interaction in neighborhoods exerted minimal regulatory effect on crime, contrary to the expectations of the systemic model. However, a cumulative measure of the prevalence of both frequent and infrequent interaction was negatively associated with burglary, motor vehicle theft, and robbery, suggesting that weak ties may generate regulatory capacity within communities. Infrequent contact may facilitate trust and shared values without also fostering extensive mutual obligation that competes with collective goals.

Putnam's (2000) emphasis on the relative benefits of "bonding" versus "bridging" social capital also highlights the potential relevance of weak ties to regulatory capacity at the neighborhood level. Bonding social capital describes tight social networks characterized by an inward-looking orientation and relatively intense ties. In contrast, bridging social capital cross-cuts social groups and boundaries. The latter form of social tie may be relatively weak (with respect to the frequency and emotional content of interaction) but useful from the standpoint of information dissemination and developing links to external assets.

A recent ethnographic study of a relatively low crime neighborhood in Chicago describes some of the methods by which communities with shared norms toward the control of crime but sparse interpersonal links effectively combat crime, in part, by relying on a form of bridging social capital (Carr 2003). The residents of the "Beltway" neighborhood — a residentially stable, middle class, and mixed white and Latino community — maintained sentiments of attachment toward their community and a consensus regarding the value of a crime-free environment. Resulting social control orientations, however, were manifest not through dense network-facilitated supervision of local adolescents, but through quasi-formal methods, including organized night patrols and court advocacy facilitated by ties to local police and municipal authorities. The capacity of the Beltway community to solicit resources relevant to crime control from extra-neighborhood sources demonstrates the potential utility of bridging social capital for the social control of crime.

Analyses of the interactive effects of networks and collective efficacy were also at odds with expectations of the ecologically conditioned cultural transmission model (Wilson 1996). We focused, specifically, on the hypothesis that networks will facilitate contagion of violent behavioral orientations when the level of informal social control is low. Our analyses offered no evidence that networks are increasingly positively associated with violence as collective efficacy declines. Our test of this approach focused on the social organizational conditions hypothesized to yield modeling of violent behavioral orientations and, in this sense, did not

require measurement of the intervening protocultural mechanism generating increasing violence. Nevertheless, we also included a measure of neighborhood level tolerance for deviance as a further test of this approach. We found no significant effect of this measure on either violent victimization or homicide rates. Moreover, the results of independent analyses of interactions between tolerance for deviance and measures of structural and social organizational characteristics offered no evidence that disadvantage, dense networks, or low collective efficacy enhance the effect of oppositional culture on violent crime.

Reinforcing the results of prior research, the spatial clustering of Chicago neighborhoods was consistently important in models of violence. Disadvantaged neighborhoods suffer not only from deprivations internal to their boundaries, but levels of violence and disadvantage in surrounding neighborhoods as well. The interactive effects of networks and collective efficacy, however, held even in the context of models controlling for spatial dependence.

The cross-sectional nature of the data precludes definitive statements regarding the causal linkages between our measures of social organization and neighborhood level violent victimization. Neighborhood network effects may be endogenous to the extent that crime results in interaction among local residents seeking to combat threats to their safety. Yet, theoretical discussions of this process have focused largely on the attenuating effects of crime on community life through processes such as increased fear (Skogan 1986, 1990). While some crimes such as burglary have been shown to increase local surveillance, street crimes such as robbery have exhibited largely negative effects on neighborhood informal social control and community stability (Bellair 2000; Liska & Bellair 1995; Liska, Logan & Bellair 1998). We also employ a lagged measure of neighborhood violence, helping to reduce the possibility of endogeneity.

Finally, an additional consideration concerns the applicability of the model to non-urban settings. Network interaction and reciprocated exchange in more wealthy or advantaged suburban communities, for instance, may be a less significant source of resources, resulting in minimal compromise to the regulatory effectiveness of collective efficacy. On the other hand, such communities may maintain unusually strong, prevalent, and interdependent networks that serve to shield those who engage in criminal activity from formal intervention (e.g., upper middle-class adolescents).

Future research will benefit from more detailed and subtle consideration of the joint influence of distinct dimensions of social capital on the control and facilitation of crime. Recent efforts to gather data on the hypothesized community level mechanisms linking structural disadvantage with crime are a welcome advance. Continued efforts to collect community level data will allow for replication on other urban and nonurban settings and foster progress with respect to the capacity for measurement of elusive social features of neighborhoods. An issue of particular concern is the measurement of cultural orientations. While our tests focused on the combination of social network interaction and collective

efficacy thought to yield crime-promoting cultural processes, our *direct* assessment of the degree to which communities vary in their normative tolerance of crime should be treated with caution. Measuring cultural features of neighborhoods effectively may require more sophisticated methods designed to capture emergent properties of neighborhoods. Finally, the tendency to view social capital as unproblematically positive should be tempered in favor of a more realistic assessment of the multiple objectives toward which social resources may be directed — an observation deeply rooted in the sociological discipline.

Notes

1. Network density here refers to the number or prevalence of social ties, taking into account the potential number of ties within the community.
2. One alternative interpretation of the effect of network density in low social control neighborhoods would posit increased opportunity for victimization offered by increasingly dense ties and frequent interaction (Mayhew & Levinger 1976).
3. Although we frame our discussion with reference to “offenders” and “conventional” residents and networks, we do so recognizing the situationally defined nature of these statuses. An individual occupying a perpetrator role in the constellation of actors involved in a given offense may be considered a victim, witness, or occupant of an otherwise noncriminal role in another offense situation. The publicly recognized criminal activities of neighborhood gangs may lead to more consistent attributions of criminal inclination to their membership. However, most neighborhood residents will spend the vast majority of their time engaged in conventional pursuits. Intra-individual variability in criminal and conventional activity further complicates informal social control efforts in socially integrated neighborhoods.
4. It should be noted that such exchanges do not imply permissive attitudes toward crime. On the contrary, the example offered by Groveland indicates that tolerance of a criminal presence may be a function of the extent to which local offenders promote conventional ends in the community.
5. Respondents were given the following definition of *neighborhood*.

By neighborhood . . . we mean the area around where you live and around your house. It *may* include places you shop, religious or public institutions, or a local business district. It is the general area around your house where you might perform routine tasks, such as shopping, going to the park, or visiting with neighbors.
6. The violent victimization measure used in the analyses asks about experiences that have occurred during the respondent’s residence in the neighborhood. Self-reported victimization in the last six months was rare rendering this outcome difficult to analyze within neighborhood clusters. Nevertheless, 42% of those who reported that a household member had been victimized in the neighborhood said that an event had occurred in the last six months.

7. Homicide counts for 1995 are incident-based (including, potentially, more than one victim) while those for 1996–97 are based on the total number of victims. Multiple-victim homicides, however, are uncommon and thus are unlikely to exert significant influence on the absolute rate.
8. Ideally, the racial composition of the neighborhood clusters would be considered independently of concentrated disadvantage. Unfortunately, the extremely high correlation between these conceptually distinct dimensions renders investigation of their unique effects statistically problematic. Since we are primarily interested in disadvantage and racial composition as controls at this stage of the analysis, we combine them in a single factor.
9. Three-level reliability is dependent primarily upon the sample size within neighborhood units as well as the proportion of the total variance that is between (vs. within) neighborhoods. Reliabilities for network interaction/exchange and deviance tolerance scales are somewhat lower than the collective efficacy scale due primarily to differences in the magnitude of the between neighborhood variance τ_{00} .
10. We also constructed separate neighborhood level indicators for tolerance of fighting and tolerance of smoking, drinking, and substance use. The scales were highly correlated ($> .80$) and were not associated with violent victimization or homicide rates in multivariate analyses.
11. The software used for the analysis (HLM 5.04) cannot estimate three-level hierarchical ordered logit models. We employ a two stage approach estimating a within- and between-individual hierarchical ordered logit to generate EB residual deviance tolerance scores for PHDCN respondents. We then estimate a within- and between-neighborhood hierarchical linear model of individual deviance tolerance scores. The approach takes into account differences in the reliability with which deviance tolerance scores have been estimated both at the individual and neighborhood levels.
12. Tobit models of the unadjusted log homicide rate produce comparable results.
13. The first stage of the spatial statistical analysis is to specify the spatial weight matrix. This matrix defines the nature of the spatial lag, or the mechanism by which phenomena are related in space. A common weight matrix definition for studies of jurisdictional data is a binary, or first-order contiguity matrix. First employed by Moran (1948), this matrix consists only of zeroes and ones. Let w_{ij} be the weight assigned to the spatial interaction between areal units i and j . Element w_{ij} of the spatial weight matrix \mathbf{W} is assigned a one if and only if areal unit i and j share a common border, otherwise element w_{ij} is assigned a zero. The decision to employ a first-order contiguity weight matrix is theoretically justified to the extent that the criminal activity of most offenders occurs within relatively close proximity to their residence.
14. Robust lagrange multiplier tests indicate the appropriateness of the spatial lag model over an alternative spatial error model (Anselin 1988).
15. While we employ the language of diffusion to interpret ρ , in fact, we cannot determine whether the spatial effect is due to incorrect specification of areal boundaries, disadvantage in adjacent neighborhoods (i.e., exposure to the \mathbf{X} characteristics of contiguous neighborhoods), or diffusion of violence itself (i.e., levels of \mathbf{Y} in contiguous neighborhoods). In the latter case, violence might result from social interaction across

neighborhood boundaries, e.g., reciprocity between rival, and neighboring, gangs (Cohen & Tita 1999; Morenoff, Sampson & Raudenbush 2001). See also Land and Deane (1992) for an application of the demographer's concept of a "population potential" to the spatial lag model of crime.

16. We consider the main effect of networks before collective efficacy in order to test the systemic hypothesis that informal networks mediate structural effects on crime.

17. We tested both product terms and the interaction between deviance tolerance and dummy variables capturing neighborhoods above the 70th percentile on logged concentrated disadvantage, collective efficacy, and network interaction/exchange. We also tested the three-way interaction between collective efficacy, network interaction/exchange, and tolerance for deviance to assess whether networks diminish the negative effect of collective efficacy only in neighborhoods with high tolerance for deviance. The three-way interaction also did not achieve significance.

18. A focus on violence alone leaves unanswered the extent to which the negotiated coexistence model applies to other types of crime. Although official property crime data are not available within Chicago census tracts for the mid-1990s, we estimated the interactive effects of collective efficacy and network interaction/exchange on non-violent offenses using data on three outcomes from the PHDCN Community Survey: the proportion of residents reporting that their home had been broken into, a three-item measure of social disorder (perceptions of the prevalence of graffiti, public drinking, and teenagers or adults "hanging out and causing trouble"), and a two-item measure of local illicit drug use/selling (perceptions of drug use and selling as a neighborhood problem and the extent to which people in the neighborhood make a living from drug sales). The pattern of results with respect to the direction and significance of coefficients for collective efficacy, network interaction/exchange, and their interaction was quite similar to that for the violence outcomes. These analyses offer additional evidence in support of the negotiated coexistence model (available upon request).

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Continued

APPENDIX: Bivariate Correlations among Variables in the Analysis

	1	2	3	4	5	6
1. EB Log odds of violent victimization	1.00					
2. EB Log homicide rate, 1995–97	.23	1.00				
3. Log concentrated disadvantage	.21	.76	1.00			
4. Residential stability	–.20	.04	.05	1.00		
5. Immigrant concentration	.13	–.25	–.07	–.22	1.00	
6. Log population density	.23	–.03	.08	–.54	.25	1.00
7. EB Log homicide rate, 1991–93	.22	.81	.77	–.06	–.33	.09
8. Collective efficacy	–.39	–.54	–.56	.38	–.05	–.44
9. Network interaction/reciprocated exchange	–.10	–.14	–.13	.05	–.10	–.18
10. Network interaction/exchange * Collective efficacy	.02	–.08	–.09	.16	.01	–.11
11. High interaction/exchange (above 70th percentile)	–.07	–.07	–.02	.08	–.09	–.17
12. High interaction/exchange * Collective efficacy	–.16	–.30	–.33	.27	–.03	–.26
13. Deviance tolerance	–.03	–.02	.00	–.17	–.18	.05

APPENDIX: Bivariate Correlations among Variables in the Analysis (Cont'd)

	7	8	9	10	11	12	13
1. EB Log odds of violent victimization							
2. EB Log homicide rate, 1995–97							
3. Log concentrated disadvantage							
4. Residential stability							
5. Immigrant concentration							
6. Log population density							
7. EB Log homicide rate, 1991–93	1.00						
8. Collective efficacy	-.60	1.00					
9. Network interaction/reciprocated exchange	-.13	.47	1.00				
10. Network interaction/exchange* Collective efficacy	-.12	.27	.10	1.00			
11. High interaction/exchange (above 70th percentile)	-.07	.36	.75	.19	1.00		
12. High interaction/exchange* Collective efficacy	-.37	.68	.38	.72	.39	1.00	
13. Deviance tolerance	.00	.00	.20	-.06	.12	-.02	1.00
(N = 343)							

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Cloning Headless Frogs and Other Important Matters: Conversation Topics and Network Structure*

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Abstract

This article considers which people talk about important matters, what people talk about when they discuss “important matters,” and the implications of conversation topic for the interpretation of results arising from the General Social Survey (GSS) network instrument based on the “important matters” name generator. We show that half the people who report not talking about anything have nothing to talk about, whereas the others have no one to talk to. Secondly, we show that people tend to talk about things that many would regard as unimportant, for example, cloning of headless frogs, eating less red meat, and so on. Given this, the connection between characteristics of discussion networks and achievement of instrumental ends — for example, getting a job or enhancing social support — is tenuous. Finally, we show that there is substantial topic-alter dependency. This dependency suggests that many substantive findings reported about, for example, gender differences in network composition might be an artifact of the data-collection instrument. Micro-level topic-alter dependencies reflect macro-level associations between attributes, topics, and roles. Consequently, cross-cultural comparison of GSS network questions is problematic. Solutions for escaping these methodological dilemmas are proposed.

Since its introduction in 1985, the General Social Survey (GSS) social network instrument has remained at the center of research into the structure of American discussion networks (Bailey & Marsden 1999; Ruan 1998; Straits 2000). The GSS

** We have benefited from the advice of Michael Sobel and Hannah Brückner. Robert Faris assisted with the design of the survey instrument used here. Beverly Wiggins gracefully implemented the many changes to the Carolina Poll that this instrument required. Seed funding from the University of North Carolina is acknowledged. Support from the Institute for Social and Economic Research and Policy is acknowledged. Authorship order is alphabetical. Address all correspondence to Peter Bearman, Institute for Social and Economic Research and Policy, 814 IAB, MC 3355, Columbia University, NY, NY 10027. E-mail: psb17@columbia.edu.*

network instrument has been used to describe local network structures, link individual network characteristics to substantive outcomes, for example, getting a job, receiving social support, and accessing opportunities (Campbell & Lee 1991; Marsden 1987), and relate network position to a variety of broad themes in urban sociology and class analysis (Alex-Assensoh 1997; Ranki & Quane 2001). The central element of the GSS network instrument is the name generator. In this article, we consider whether one should have confidence in the GSS instrument, similar name generators, and more broadly, many of the substantive conclusions arrived at from analysis of GSS-style network data.

Network instrument name generators do just what they sound like they do; they generate names. The name generator, “who are your enemies?” should generate a different set of names than the generator “who are your friends?” for example. In the GSS, the specific name generator used is “*From time to time, most people discuss important matters with other people. Looking back over the last 6 months, who are the people with whom you discussed matters important to you?*”¹ The general assumption of most prior work is that the instrument effectively captures, through the name generator, the important relationships that individuals have with others and that the matters discussed are in some sense important enough to proxy resources available to individuals as they pursue their life goals — for example, forming opinions, finding employment, seeking health care, and the like. The idea is that people talk about important matters with others who are important to them.

Some prior research has considered how people interpret the GSS name generator. Bailey and Marsden (1999), for example, report that while individuals proffer different interpretations of the “important matters” generator, that network composition does not differ in relation to these different subjective interpretive frameworks. Using a different methodology, one less subject to sample selection bias, Straits (2000) reports similar results — wording alterations introduced into the name generator produce just a few insignificant effects. Both conclude, consequently, that although the mechanism linking the name generator to the names generated is ambiguous, the results are robust. Here the claim advanced on behalf of the instrument is that the proof is in the eating of the pudding.²

At least for the U.S., it appears to be that the GSS name generator elicits respondent’s strong ties. Most people (although not all, by far) can think of someone they talked to about an important matter within the past six months, and in general, the people they identify (by role) make intuitive sense; their spouse, children, parents, close friends, and so on. Because the people they describe are close to them, they tend to know each other and have similar social characteristics. Consequently, these networks are relatively dense and homogeneous. As Marsden summarizes, these core discussion networks tend to be “small, centered on kin, comparatively dense, and homogenous by comparison to the respondent population as an opportunity structure” (Marsden 1987:126-27). Against this background, as indicated above, variation in the structure of these networks is associated with variation in substantive outcomes. Thus, people with exceptionally heterogeneous

networks, males for example, might be expected to have greater access to information about jobs, but less social support.

It is odd that, in the midst of this work, both on the methodology and the substantive significance of the GSS instrument, that little attention has been paid to what people actually talk about when they talk about important matters. There are two reasons to care. First, work that suggests that the “important matter” network is associated with the achievement of instrumental outcomes (getting a job, securing social support, etc.) presumes either that the important matters discussed are actually important, or that they stand in an equivalence relation to matters that are actually important for the achievement of substantive ends, for example, borrowing money, learning about jobs, and so on. The general assumption is that people talk about matters important to them with people important to them. But if the matters are not really important, it is possible that they talk about them with people who are not really important. Knowing what people talk about would help us understand the significance of the core discussion networks individuals are embedded in.

Second, and more importantly, topics of conversation may be systematically associated with specific roles. While it is possible that the kin-centered networks reported for the U.S. are being generated because of the structure of North America society — which is the basic idea of the research to date, it is also possible that these networks are being generated as an artifact of preferences some individuals have to talk about *certain matters* with family members (Ruan 1998). If preferences linking topics to roles vary across social settings — which seems to be a reasonable idea in cross-cultural context, for example — knowing what people talk about when they talk about important matters would facilitate substantive interpretation of comparative research findings. Consequently, decoupling alters and topics in ego’s conversation flow will further our understanding not only of the functioning of the network instrument but also of ego’s structure of relations.

So, what do people actually talk about? Just about everything is the simple answer. And are the topics “important”? Some are important in the sense that they reflect recent events in the news. At the time of our data collection, stories concerned the “nanny” in Boston who murdered her charge, a state trooper who was shot on interstate 95, road-construction projects, moral issues in the Clinton White House, and trouble in the livestock (specifically pig) industry, and these and other stories were frequently discussed. Some are also important in the sense that they reflect issues of “personal” importance, for example, caring for one’s aged parents, deciding on what school to send the kids to, dealing with a difficult boss, getting a loan on a new car, quitting smoking, eating less red meat, losing weight, and so on. And some are important in a global, abstract sense, for example, the “collapse of American moral life,” the disappearance of local community, the “desertion of God,” and globalization. Finally, some appear to be relatively trivial — for example, getting a new haircut, caring for the neighbor’s lawn, or the new traffic lights installed in town.³

Against this background, the puzzles this article considers are the following. First, if the topics that count as important are so broad as to include the potentially unimportant, why do so many people not report talking about anything with anybody? Is it because they have nothing to talk about, or, as the literature assumes, nobody to talk to? Second, since the topics people talk about are completely heterogeneous in scope and range is there a foundation from which one could actually use the GSS data or any data coming from similar name generators, to describe anything meaningful at all about the core discussion networks of Americans? Third, is there patterning of topics and alters, and if so, what does this patterning suggest about the structure of American society and the possibilities for comparative analysis.

To anticipate the main arguments, we show that roughly one-half of the people who report not talking about anything in the last six months have nothing to talk about, even apparently getting a haircut. The other half may have something to talk about, but have nobody to talk to. We show that it is possible to observe quite striking topic-role patterns, that these patterns are asymmetric, and that they reveal what appear to be deep divisions by gender. Some of the observed asymmetries are not surprising: for example, husbands talk to their friends about their relationships, while wives (try to) talk to their husbands about their relationships. But the role-topic overlap extends across multiple roles beyond spouse and structures the data that we observe. Consequently, one has to be concerned that many of the research results reported earlier, especially those focused on gender differences in ego network structure, are an artifact of previously unobserved role-topic overlaps. Finally, we consider the macro-structure that organizes, beyond these dyadic asymmetries, the topics of conversation that people have in relation to their social characteristics. Not surprisingly, patterning across roles, topics and social strata is acute, although often in unexpected directions. This suggests that inference across diverse cultural contexts using the GSS stratagem is a risky enterprise.

Data and Methods

The data for our analysis comes from the North Carolina Poll, an annual representative survey of adults residing in North Carolina.⁴ Data used in this article arise from interviews conducted by telephone between November 1 and 12, 1997. The questions of interest for this study are presented below.⁵

Question 1: From time to time, most people discuss important matters with other people. Looking back over the last six months, that is, since early last May, have you discussed important matters with anyone?

Question 2: Thinking back to the most recent discussion you had about an important matter, would you mind telling me, briefly, what was the general topic of this discussion?

Question 3: Most recently, is the person you talked to about this matter: a spouse, other relative, friend, counselor, lawyer, doctor, acquaintance, or what?

Question 4: Which best describes why you haven't discussed any important matters with others lately. Would you say that: (1) You haven't had any important matters to discuss in the last six months, or (2) You haven't had a person you wanted to discuss important matters with in the last six months.

The second and third questions were asked only to those individuals that reported having discussed important matters in the last six months. The question on the topics of conversation was open-ended; more than four hundred discrete topics were recorded. Question four was asked only to those who reported not talking about anything important in the past six months. Almost 80% of the sample reported talking about something important in the last six months. We refer to this group as the "talkers." It follows that 20% of the respondents reported not talking with anyone in the past six months. We refer to them as the "silent."

In order to obtain leverage on the relationship between conversation content and role structure, we aggregated the 400 individual topics into 9 broad content domains.⁶ These domains and the distribution of responses for each domain are presented in Table 1 below. Issues related to household finances and money are the most frequently discussed "important matters."

The third question provided a list of alters. If the respondent selected two alters, the interviewer prompted him or her to choose the person he or she spoke to most recently. In the analyses that follow, we retain for comparability the standard GSS strategy for aggregation of alters, focusing on spouses, friends, other relatives, and acquaintances. Table 2 reports the distribution of alters across categories presented to the respondents.

Throughout we consider a set of standard statistical techniques to investigate patterning of roles and contents, the determinants of talking, and the characteristics of the silent. Since these methods are frequently found in the literature, we do not describe them in detail here. In some instances, we use techniques not as common in the sociological literature. These are described where invoked. Finally, we consider the macro-structure of conversation using multiple correspondence analysis (hereafter, MCA). An exploratory analysis such as MCA is particularly suitable in this case, as the contingency table includes many categories, and the variables are of a categorical nature. We retained only the components with an eigen value (EV) greater than $\frac{1}{Q}$ where Q represents the number of variables in the analysis (Greenacre 1994). This left us with only two dimensions to analyze. We correct the EV of each dimension following Greenacre (1994).⁷

TABLE 1: Topic Domain Distribution

Topic domains	Frequency	Percentage
Community Issue	60	11.9
News and economy	33	6.5
Kids and education	50	9.9
Politics and election	57	11.3
Life and health	63	12.4
Relationships	50	9.9
Money and house	80	15.8
Ideology and religion	61	12.1
Work	52	10.3
	506	100

Results

We first consider the simplest problem — who talks — and model the factors associated with talking about important matters. We then consider with whom the talkers’ talk, and what they talked about when they did talk. Specifically, we focus on the presence of role-topic dependencies and consider their implication for interpretation of a set of previously published substantive results on gender differences in network composition. We then focus on the silent people, and consider why they report not talking. Finally, we consider patterning across topics and roles at the macro-levels. We consider how the observed role, topic, and attribute patterning in our data limit the inferences one can make about structure of ego-networks in cross-national (or cultural) studies.

WHO TALKS ABOUT SOMETHING

Leaving behind, for the moment, what individuals talked about with others if they talked, we first consider who talked about anything with someone. Substantial work on this topic has been previously reported, and our main concern here is centered on assessing whether or not our data replicate previous findings, through comparison to previously published research. Earlier research has shown that some basic individual characteristics play a role in shaping the structure of ego’s network (Marsden 1987; Moore 1990). In this article we consider the most important of these attributes, specifically: gender, race, marital status, employment status, political attitudes, household composition, education, and age. Frequency distributions for selected variables describing the sample of respondents in our data are reported in Table 3.

Individual’s ego-networks vary across the life course. Marsden, for example, reports that young and middle-aged individuals have the largest network range (1987:128). Consequently, we expect age to have a negative effect on the likeli-

TABLE 2: Distribution of Talking with Alters

	Frequency	Percentage
Alter talked to about important matters		
Spouse	171	28.8
Other relative	72	12.1
Friend	228	38.4
Counselor	10	1.6
Lawyer	8	1.5
Doctor	9	1.5
Acquaintance	40	6.7
Other	55	9.2
	593	100

hood of discussing: older individuals are less likely to report discussing anything important in the last 6 months. Fischer reports (1982) that education is positively associated with likelihood of having discussion partners, consequently we expect to observe similar results here. With respect to employment status, marital status, household composition, and religious affiliation, we expect to observe similar simple mechanisms operating to shape the probability of discussion. Specifically, having a job, being married, having children, and attending religious services should enlarge ego's network and thus increase the chances of having discussed something important in the last six months. Those with a political attitude, whatever its direction, are also expected to be more likely to report discussing something with someone in the last 6 months.

The effect of gender on propensity to discuss is not immediately clear. On the one hand, most network studies suggest that women are embedded in more intense strong-tie networks than men, so one might expect gender to positively affect the probability of having an important discussion topic, presuming that important topics arise from such intense relationships. On the other hand, previous work has suggested that there are significant gender differences in the structure of ego-networks, for example, women tend to form networks with a higher number of kin than men (Moore 1990). But the structure of networks should not influence the probability of discussion unless both men and women thought that some topics (for example, those discussed with weak-ties) were more "important" than others. One idea is that gender differences in network composition may arise from different material situations. Fischer, for example, argues that younger women are more constrained than men in their ability to make social ties beyond kinship; only later in their life cycle do women experience more liberty in enlarging their circle of associates (Fischer 1982:254). A direct assessment of this idea is possible simply by interacting age and gender. Here, we would expect to observe the expression of gender on discussion conditioned by age, such that as women age,

TABLE 3: Sample Characteristics

	N	Percentage
Attributes		
Gender		
Males	325	42.4
Females	442	57.6
Race		
White	617	80.7
Nonwhite	147	19.3
Marital status		
Never married	124	16.2
Divorced or widowed	197	25.6
Married	447	58.2
Having a political opinion		
No	267	42.8
Yes	357	57.2
How many children below 16 years of age live with you		
No children	493	63.6
At least 1	282	36.4
Education level		
Less than high school	118	15.3
High school graduate	227	29.5
At least some college	425	55.2
Age		
18 to 24 year old	71	9.3
25 to 44 year old	318	41.5
45 to 64 year old	243	31.7
Older than 65	134	17.5

they will be more likely to report discussing something important in the last 6 months. To assess these mechanisms, we fit a logistic model on the likelihood of talking and report results in Table 4. Overall, there are no real surprises, which suggests that our sample behaves similarly to other samples on the simple question of the likelihood of talking. This result does not, of course, consider whom one talked to, or what one talked about. Consequently, one cannot infer from the probability of discussion anything about the structure of discussion.

Specifically, it is evident that most of the effects are in the expected direction. The older the respondent was, the more likely she reported not having discussed anything. Similarly, for individuals that were never married the propensity to talk is lower than for married people. The effect of gender on the likelihood of talking

TABLE 4: Determinants of Talking About Important Matters

	Beta	Standard Error
Have you talked about important matters		
Divorced/separated or widowed	.268	(.297)
Never married	-.631	(.366)
Race	.577	(.277)*
Age	-1.194	(.453)**
Children	-.046	(.28)
Political opinion	-.278	(.242)
Gender	-1.425	(.744)
Working part-time/student	.211	(.39)
Not working	.168	(.307)
Education	.992	(.157)**
Women * Age	.530	(.265)*
Constant	3.074	(1.339)*
R ²	.11	
(Observations = 596)		
* p < .005 ** p < .001.		

is rather interesting. Females are less likely to report talking about important matters in the last 6 months than are males. However, the interaction effect of gender and age is statistically significant. Consequently, one can infer that older women are more likely to report having discussed important matters than younger females. Finally, educated individuals are also more likely to have talked about something. In fact, the impact of education is extremely strong — holding all the other factors constant, having at least some college education increases the odds of talking with someone by a factor of almost 2.7, compared to individuals that have just completed high school. Likewise, race plays an important role, the odds for white individuals to report talking about something in the last 6 months are 78% higher than for non-white. Finally, not all the predictors in the analysis were significant. In this analysis, neither employment status, having a political attitudes, or having children in the household are associated with the likelihood of talking about matters, important or not, in the past six months.

WHO TALKS WITH WHOM ABOUT WHAT?

Table 5 reports results of the cross-tabulation of topics and alters, by frequency, and row and column percentage (cells that are in bold represent percentages higher than their cross row and column marginals).⁸ From simple inspection of Table 5, one can reject the idea that alters and topics are independent ($\chi^2 = 35.98$, $p = 0.055$). It follows that the type of important matters that individuals reported talking about

depends on who they talked with. Subsequently, we refer to this association as “role-topic” dependency. From Table 1, recall that the most common topic of conversation is money and household finances (*money and house*). Here we see that it is closely associated with talking to one’s spouse. When partners are not talking about money, they talk about health. One-third of the conversations about life and health are between spouses, conversations with relatives are more likely to be about relationships than about anything else, and so on. It follows that the type of important matters that individuals reported talking about depends on whom they talked with. Which topic domains engage which alters in conversation is therefore a relevant question.

We answer this question by examining separately the patterning of topic domains and roles for men and women. Calculation of the χ^2 residuals provides a measure of the contribution of each topic domain to the overall χ^2 . Figure 1 (panels a-d) reports the difference between the residuals of men and women, for each alter. A negative value indicates a topic domain that was mostly talked about by *women* in their conversation with the reported alter, while positive values highlight men’s conversation preferences.

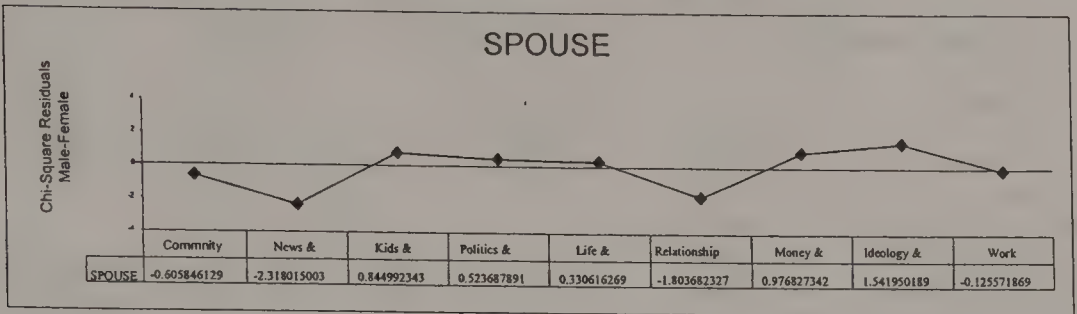
Focusing first on the overall patterns for each relationship type, Figure 1 (panels a-d) show that talking with *spouse*, *friend*, and *acquaintance* evidence significant asymmetries in conversation flow, i.e., the topic domains engage different alters depending on gender. In contrast, with all the residuals very close to 0, talking with *other relatives* appears to have the least differentiating patterning controlling for gender. Consequently, men and women (in our sample) talk with their relatives about the same important things, whatever they might be. More striking asymmetries emerge when one shifts focus to specific topic domains, for example, *relationship*. Figure 1a shows that married women (try to) talk about relationships with their husbands while their husbands⁹ talk about relationships with their friends. Similarly, married men report (monologue?) conversations about ideological issues with their wives, the latter whom report talking about ideological issues with their acquaintances.

In order to assess the statistical significance of these patterns, we can decompose Table 5 following Agresti (1990) by calculating a simple likelihood ratio. Here the numerator is the maximum likelihood when H_0 is true, i.e., when the two factors are independent, while the denominator is the maximum likelihood under the alternative hypothesis, i.e., that the two factors are not independent. G^2 is the likelihood ratio χ^2 . The larger the value of G^2 the more evidence we have that there is a dependence between the two variables. Thus, we use G^2 to decompose the statistical dependency of topic domains and roles, separately by gender. Results are presented in Table 6.

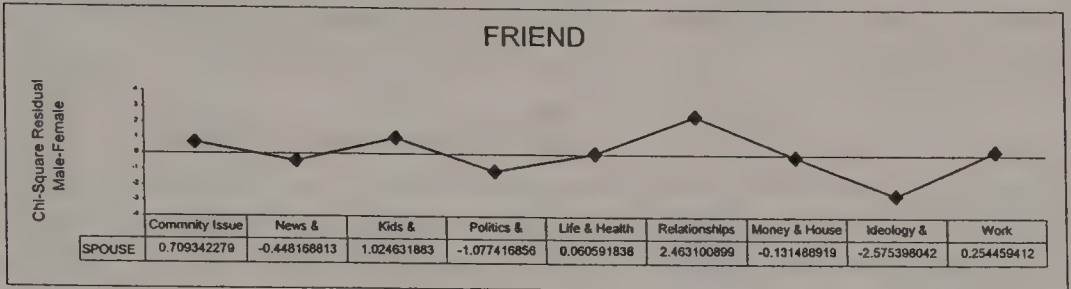
Overall, for males we fail to reject the hypothesis of independence between topics of conversation and alter. By itself this is an interesting result which suggests that males are less differentiated than females.¹⁰ Still, even for males, there are substantive elements in play. Note that the G^2 for spouse/friend accounts for almost

FIGURE 1: Conversation Asymmetries

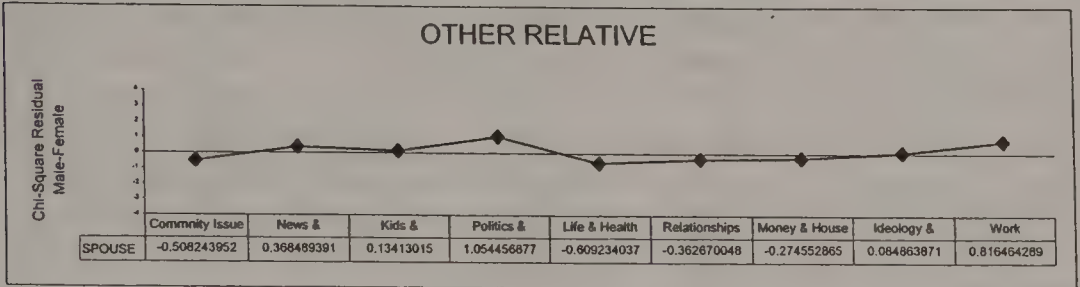
Panel a: Conversation Asymmetries for Talking with *Spouse*



Panel b: Conversation Asymmetries for Talking with *Friend*



Panel c: Conversation Asymmetries for Talking with *Other Relative*



Panel d: Conversation Asymmetries for Talking with *Acquaintance*

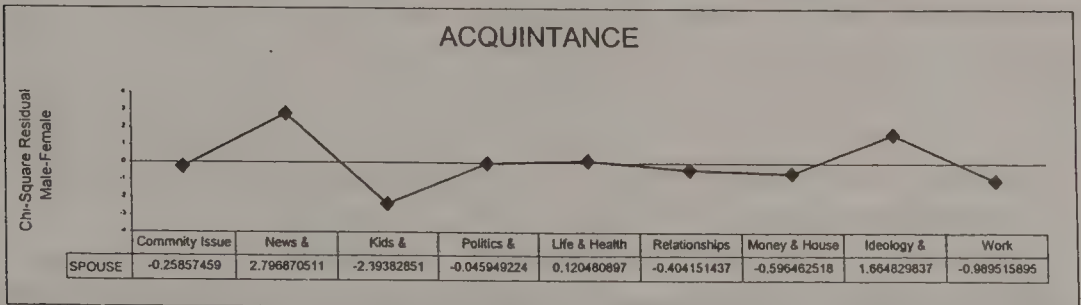


TABLE 5: Role-Topic Domain Dependency

	Spouse	Friend	Other Relative	Acquaintance	Total
Conversation Domain					
Community	12	23	6	19	60
	20	38.3	10	31.7	100
	8.3	12.2	9.7	17.6	11.9
News and economy	10	12	2	9	33
	30.3	36.4	6.1	27.3	100
	6.9	6.4	3.2	8.3	6.6
Kids and education	20	13	6	11	50
	40	26	12	22	100
	13.8	6.9	9.7	10.2	9.9
Politics and election	14	24	6	13	57
	24.6	42.1	10.5	22.8	100
	9.7	12.8	9.68	12.0	11.3
Life and health	21	20	9	12	62
	33.9	32.3	14.5	19.4	100
	14.5	10.6	14.5	11.1	12.3
Relationships	15	20	11	4	50
	30	40	22	8	100
	10.3	10.6	17.7	3.7	9.9
Money and house	32	23	9	16	80
	40	28.8	11.2	20	100
	22.1	12.2	14.5	14.8	15.9
Ideology and religion	10	30	9	10	59
	16.9	50.9	15.3	16.9	100
	6.9	15.9	14.5	9.3	11.6
Work	11	23	4	14	52
	21.1	44.2	7.7	26.9	100
	7.6	12.2	6.4	12.9	10.3
Total	145	188	62	108	503
	28.8	37.4	12.3	21.5	100
	100	100	100	100	100

Note: N, row percent, column percent

50% of the total G^2 indicating a substantive, if not statistical, dependence of some topics to alters for males. Table 6 also suggests different behavior for married males and females. Specifically, married women talk about different important matters depending on whether they are talking with their husbands or with their friends. Husbands, for the most part, are indifferent with respect to conversation topic between these two alter sets. In marriages, asymmetries in conversation are apparent

TABLE 6: Role-Topic Domain Dependency by Gender

	Spouse vs. Friend	Spouse + Friend vs. Other Relative	Spouse + Friend + Other Relative vs. Acquaintance	Total
Males	$G^2 = 12.50$ ($p = .13$)	$G^2 = 1.53$ ($p = .992$)	$G^2 = 12.03$ ($p = .15$)	$G^2 = 26.56$ ($p = .35$)
Females	$G^2 = 16.42$ ($p = .037$)*	$G^2 = 5.28$ ($p = .728$)	$G^2 = 11.02$ ($p = .201$)	$G^2 = 32.71$ ($p = .11$)

across three domains: *community issues*, *news and economy*, and *relationships*. Here, married women report talking about these important matters with their husbands. Husbands, on the other hand, do not report talking about these matters with their wives.¹¹

These findings may provide insight into the dynamics of romantic relationships, but here we consider only the methodologically relevant issue which is that if we ask individuals with whom they talked about different topics in the last six months, we would generate different networks because their characteristics (e.g., married or not) determine what they consider important and therefore, given role dependency on topic (and vice versa), who they report talking to. Consequently, it is possible that most of the differences observed in previous work on the structure of male and female ego networks are an artifact of dependencies similar to those observed here. Subsequently, we consider the macro-structure of topics, attributes, and roles using correspondence analysis, a strategy that allows us to consider multiple dependencies simultaneously. Before this, though, it is important to learn more about (and locate in social space) the silent individuals.

WHO DOESN'T TALK — AND WHY?

As noted above, 20% of the respondents reported not talking about anything important with anyone. It is possible that nothing important happened to them, but on closer examination of the topics people did report as important matters for conversation, including but not limited to, children, gun control, my ex-wife running away, neighborhood security, the cloning of the headless frog, remodeling my home, the medical care system, and money, it would seem that the phrasing of the question did not eliminate a priori those without something *really important* to discuss. In general the network literature has assumed that the silent individuals are socially isolated. This turns out to be incorrect. Recall that we asked those who reported no conversations why they did not have any, whether for lack of persons to talk to or topics to talk about; 44% of the silent people had no one to talk to, 56% had nothing to talk about.¹²

TABLE 7: Who Talks to No One: Characteristics of the Silent Individuals

Attributes	N	Fischer's Exact Test for Independence
		P
Race	148	.049*
Gender	152	.323
Employment status	152	.187
Education level	152	.631
Marital status	151	.051*
Political opinion	105	.221
Having a child	152	.476
Age	150	.332

* $p < .005$

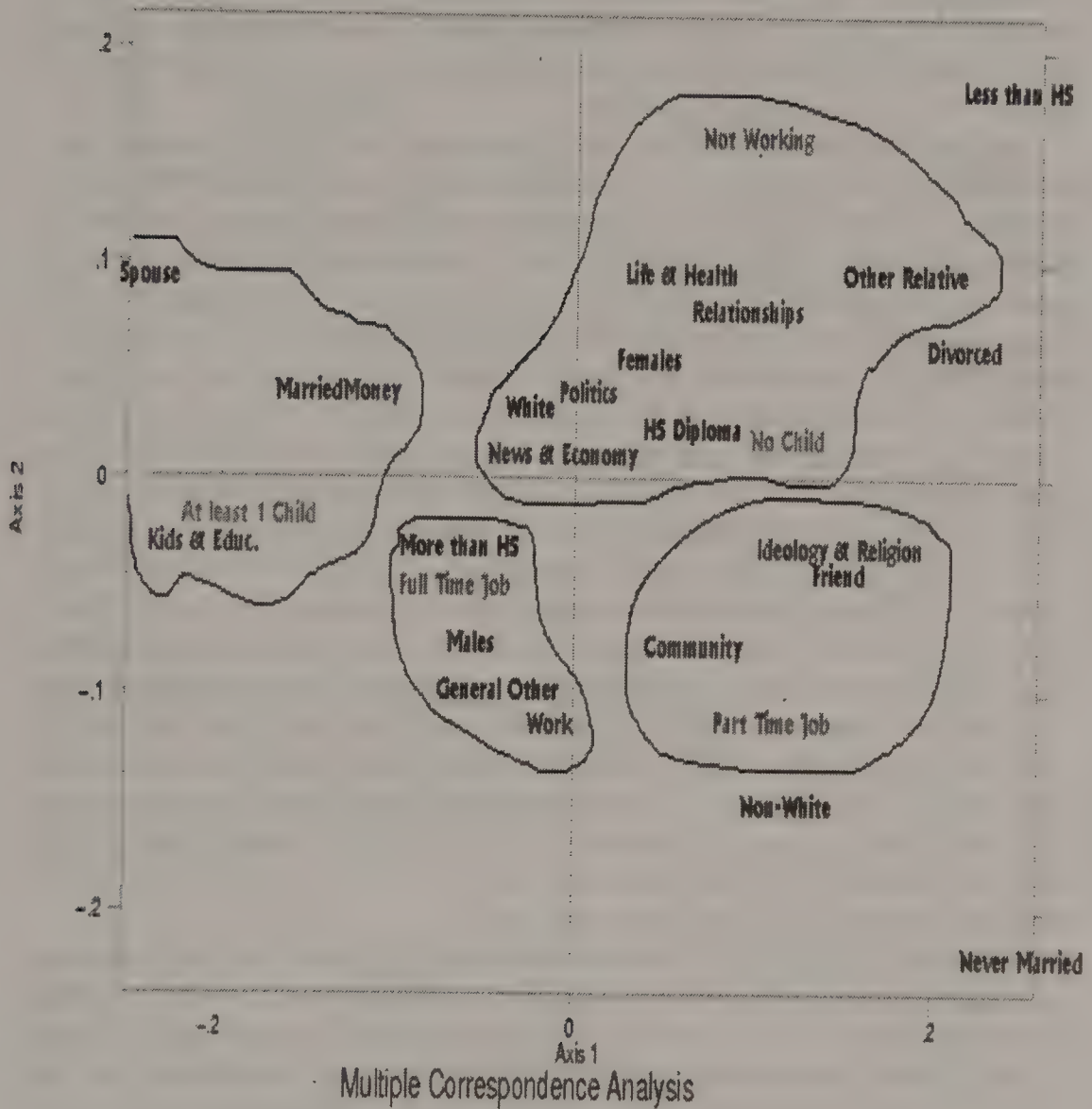
It is reasonable to define isolation as the absence of social ties. Consequently, one can expect that the individuals who reported not talking about anything because they had no one with whom to talk are more likely to be social isolates than the individuals that reported not talking because they had nothing important to say. We test this idea by considering the association of isolation and some key individual characteristics¹³ and report the results in Table 7.

With respect to isolation, race and marital status appear to be the only two relevant attributes. In particular, while white individuals predominantly reported not having topics to discuss (62%), nonwhite respondents mostly reported not talking because they did not have people to talk with. This difference is statistically significant ($\alpha = 0.05$; CI, 0.183-0.152).¹⁴

Note that married individuals were more likely to be silent than isolates (66%) while the reverse was true for divorced or widowed respondents. In other words, of those who did not talk, the married said they did not talk because they had nothing to talk about, and the divorced (or widowed) said they did not talk because they had no one to talk to. No difference was observed for never-married individuals.¹⁵ In our sample, almost 40% of the isolated individuals were divorced, while 23% were never married. Thus, among the silent individuals, a subgroup of nonwhite and not-married individuals can be identified. We consider this finding in more detail subsequently.

THE MACRO-STRUCTURE OF CONVERSATION

In order to explore the nature of the association between the symbolic network of roles, topics of conversation, and individuals' characteristics we represent the social structure of topic domains and alters' using multiple correspondence analysis (MCA). The results of this analysis are reported in Figure 2.¹⁶

FIGURE 2: The Macro-structure of Roles, Conversation Domains, and Attributes

Elements close to other elements in the state space are similar in profile. Thus, for example, the cluster of attributes (male, full-time employment, college education) in the bottom left quadrant (cell 1, 2) indicates that they bunch together, in contrast to the attributes in the top right quadrant (cell 2, 1) associated with being female, e.g., part-time work and high school education. Likewise, conversation topics that cluster together share similar profiles across the roles and attributes, whereas those more distant in the state space are different. Working our way through Figure 2, we can first observe that the four alter roles are located in

separate quadrants. Starting from the 1st quadrant and working our way through the 2×2 matrix, indexing quadrants by row and column, we find, consequently: spouse (1, 1), other relative (1, 2), friend (2, 2) and acquaintance (2, 1). Consequently, with respect to the joint structuring of attributes and conversation domains, each alter role is different from the others. Whom one discusses important matters with is jointly shaped by the matter, the role, and the attributes of ego (and alter).

Focusing first only on the overlap of topic and role (the dependency issue considered previously, but here as conditioned by the macro-level distribution of attributes) we can observe, for example that friends occupy the same quadrant as *ideology* and *religion* and *community*. In contrast, spouse occupies the same quadrant as *money* and *finance*. These associations are represented in stylized form in Figure 3a, which simply abstracts data in Figure 2 to reveal the main structure. From Figure 3a it is easy to see that the rows reflect different positions with respect to kinship. Kin conversation networks (spouse and relative) are in row 1, whereas nonkin conversation networks (friends and acquaintances) are in row 2. Not surprisingly, instrumental — column 1 — conversation domains (work, money, etc.) are distinguished from affective, intellectual, and abstract rhetorical conversation domains in column 2. Note that one can talk about the *news* with anyone — or posed alternatively the news as conversation topic can support any dyadic pair. In that sense it serves the generic function of small talk, conversation that is not revelatory of the personality and so can match to any available role alter.

Further decomposing Figure 2, Figure 3b locates in stylized space the attribute structure of the overall graph. Following the same convention for working through each quadrant, we observe a series of oppositions. Males, those who are working, and those with college education are in cell (2, 1); whereas females, the unemployed, and those with less than a high school education are in cell (1, 2). Race and marital status crosscut the SES divide.

Returning to Figure 2 (the correspondence analysis), recall that the horizontal axis separates kin conversation networks from nonkin networks, while the vertical dimension separates instrumental from affective topics. From previous research we might expect that females would be located in the state space closer to kin and affective discussion contents than males, who are embedded in instrumental and nonkin networks and conversations. But here we show that this is as likely a structural feature of the organization of role-topic dependencies as it is a reflection of underlying differences in network composition.

This is confirmed by the fact that the role-alter “spouse” (for the first dimension) and employment status (for the second dimension) accounts for almost 25% of the variance in each dimension respectively. The positioning of profiles suggests that while male’s talk mostly with those outside the family, females do the reverse. From a different perspective, inside the family network, women participate in more heterogeneous conversation domains, as it is evident by their association with *politics*

FIGURE 3

3A — Stylized Role-Topic Clustering

<div>SPOUSE</div> <div>Money & House</div>	<div>OTHER RELATIVE</div> <div>Life & Health</div> <div>Relationships</div> <div>Politics & Elections</div>
<div>Work</div> <div>ACQUAINTANCE</div>	<div>Ideology & Religion</div> <div>FRIEND</div>

3B — Stylized Clustering of Individual Characteristics

<div>Married</div> <div>White</div>	<div>Less than HS</div> <div>Not Working</div>
<div>Male</div> <div>Some College</div> <div>Working</div>	<div>Female</div> <div>Non-White</div> <div>Never Married</div>

and elections and life and relationships, for example. On the other hand, men appear to be embedded in conversation ties mostly related with their work.

Finally, we consider those individuals who were silent. While they cannot be included in the MCA (they talked to no one), it is worth noting that silent and isolated individuals — those who reported not talking about anything important in the last 6 months — are *with respect to their social structural characteristics* located in the bottom corner of the 4th quadrant, closely associated with never being married, having a part-time job, and being nonwhite.

Discussion

For more than a generation, social scientists have used the GSS social network instrument to measure the social worlds of individuals. Oddly, few people wondered what the instrument measured, and even more oddly, no one bothered to find out what kinds of topics were considered important enough to warrant reporting. When individuals reported not talking with anyone, the social science community interpreted this as a striking fact of social isolation, giving rise to the idea that in the U.S., large numbers of people were without associates and friends, isolated, anomic, and completely disembodied.

Likewise, social scientists routinely considered the relationship between network characteristics and substantive outcomes of relative significance, for example, job attainment as unproblematic. The mechanism linking conversations to the attainment of individual ends was never clearly specified, but it seemed reasonable to presume that if people talked about something important they would also share news and information about other important things. So the instrument appeared to be a useful proxy, standing in an equivalence relation, for something that could assist achievement of individual ends. But is this really the case?

In this article we consider the extent to which one might have confidence in the GSS name generator, and the extent to which one might have confidence using the instrument across contexts, and across roles. First, we show that half of the people who report not talking about anything do not report being isolated. They simply do not have something they think is important to talk about. The other 50% may want to talk about the cloning of the headless frog, a shooting on the highway, the state of the economy, the failure of the space program, the moral decay of our political leaders, their neighbor's apple tree, or the ease of obtaining pornography on the Internet, but they do not have anyone to talk to. They are the isolated, and not surprisingly, they are those who lost partners and are without jobs. Perhaps more interesting, they are also nonwhite. So we need to reevaluate our assessment of the proportion isolated, and consequently the sociological meaning of isolation, in the U.S. context.

Second, many of the matters people consider important enough to report having conversation about often bear only the vaguest and most tenuous relationship to

the achievement of instrumental ends. It is always possible that talking about a headless frog may get you a job, but the pathway is certainly not clear. Likewise, talking about what school to send the kids to may help build attachment to community, but it is certainly not clear how this would come about. Since the topics of conversation are so often trivial news events, one should be cautious inferring that the conversation networks that arise from such discussions are of substantive importance. These are the simplest points.

More important, and more interesting, is the strong association we observe between role and topics, for some dyadic pairs. The finding that wives talk about relationships with their husbands while husbands talk about relationships with their friends provides perhaps the most graphic example. Why should one care about such dependencies? Imagine a world in which women define as important conversations about *relationships* and men define as important conversations about *news*. In this case, we would observe, using a GSS-style instrument, that women talk to kin and men talk to others. We would therefore observe that the networks of men and women differ with respect to proportion kin, heterogeneity, and density of the ego-network, to select just some common measures. Men would look as if they were embedded in weak-tie networks, whereas women would, overall, appear to be embedded in strong-tie networks. Indeed, this is what Gwen Moore suggests in her analysis of the 1985 GSS data (1990). Now, because males tend to have better jobs than women, one would be tempted to observe that the association between jobs and networks was (in some sense) real. But the association between jobs (for example) and network characteristics is likely, given the topic-role dependency we observe, to be an artifact of the asymmetry in the structuring of topics by alters. A far less problematic approach would be to break the important questions name generator down into the set of constituent domains that organize the structuring of discussion in the U.S.

Needless to say, in societies where different cultural norms govern the relationship between alters and topics (e.g., China) comparison of observed structures to the U.S. pattern is likely to be seriously misleading. (Blau, Ruan & Ardel 1991). Just considering the Chinese case, for example, Blau and colleagues report that 16% of U.S. conversations are with coworkers, whereas 35% in China are with coworkers; likewise relatively large differences can be observed for kin (39% in China, 53% in the U.S.). If, as we suggest, there is evidence for role-topic dependency, this result could easily arise from the dependency, rather than different network opportunities, as previously imagined.

The structure of the role-topic (and attribute) dependency is revealed most clearly by the multiple correspondence analysis in which we observe marked patterning of alters, attributes, and topics at the macro-level — a pattern which is strongly conditioned by employment status and kinship relations. Whether such macro-level patterning is common across contexts is unknown. The fact that the silent and isolated individuals in our sample are mostly non-white suggests that in social formations less stratified by race, different patterns should emerge.

Consequently, one would have to be hesitant to make direct cross-national comparison at the micro-level of individual networks, since they likely reflect underlying distributions of opportunities.

What should be done? It is clear that the GSS name generator captures something and it captures it with consistency. The evidence for this is that the predictors of talking in our sample are the same, more or less, as reported across a diverse literature. There is clearly much to be learned from an orienting question about important matters, whatever the matters turn out to be that are important. But for studies which seek to compare impacts of network structure on outcomes, focusing on key attributes such as gender and marital status (for example), this article suggests that researchers would benefit from focusing on specific conversation domains, and comparing networks arising from those domains, given the strong overlap between persons, roles, and topics of conversation. Likewise, for individuals interested in cross-national comparison, attention to the structure of conversation topic-role dependencies seems equally critical, for it is reasonable to think that the patterning of these dependencies at the macro-level gives rise to much of the significant variation one often observes at the micro-level.

Notes

1. The wording of the name generator has been a matter of concern from the beginning. In the original version, "personal" stood in place of "important." Ruan (1998) reports that the original question was changed to the current one because of the narrow interpretation that some people gave to "personal matters."
2. That is, perhaps like econometrics and sausage, one should ignore the ingredients if it tastes fine. Note also that different name generators have also been tested sequentially and the alters so obtained compared to each other (Van der Poel 1993). The results of this work suggest that groups of alters do differ when switching from one generator to another. But the mnemonic bias introduced by the sequentiality of the research design is problematic as alters may come to mind in a later generator because they were elicited by a previous question (Straits 2000).
3. Of course, these seemingly trivial topics may really be instantiations of important topics, thus considered in order, reflections on the hegemony of appearance in modern capitalist society (the haircut), the veracity of the Putnam thesis on associational life in the U.S. (the neighbors' lawn), and concern over the hyperrationalization of modern society, and the concomitant breakdown of customary norms for governing interactions (the traffic light), etc. We are not actually interested in whether the specific items are "important" in an objective sense, whatever that may be, but instead in the patterning of matters across alters.
4. The North Carolina Poll is a representative study of North Carolinians. The sample is stratified by county of residence. Across strata, 2,933 telephone numbers were selected. A number was dropped if (1) it was proved to be nonworking ($n = 530$);) the number

was nonresidential ($n = 212$ or there was no eligible respondent living at that number ($n = 76$); (2) the interview was refused ($n = 493$) or terminated ($n = 144$); (3) there was no answer ($N = 311$) or a busy signal, answering machine, or fax after three attempts were made at least one hour apart ($n = 396$). Consequently, 771 interviews were completed, yielding a response rate of roughly 62.5% when interviews terminated after the network protocol are included. It is hard to interpret potential selection bias arising from (3) above. Clearly, for these analyses, one could imagine that the design selects for people without large networks, since they would be more likely to be engaged in long telephone conversations. Of course, these people could also be terribly lonely internet surfers, trapped in long distant chat rooms. We believe any such effects are minimal.

5. In pretests we discovered that the content of the important matters reported was strongly influenced by prior questions on the survey. In fact, when education was the initial topic of the survey, more than 60% of the respondents reported that the topic they last talked about was education. Consequently, these questions were the first asked in the survey.

6. Independent coders assisted in the aggregation of responses to these domains. Inter-coder reliability was high, well over 90%. Obviously, the choice of nine categories (versus 8, 10, etc) is more difficult. By chance, the distribution across domains is roughly equivalent, which is useful statistically and provides some support for the idea that we have in fact arrived at a reasonable scheme. The heterogeneity of responses within domains varies somewhat. The domain, News and Economy, for example, contains the following kinds of answers: Economy of the country, Stock market, Political things such as the stock market, daily news, economical development in the Third World, stock market fall, economy in North Carolina livestock, situation in Middle East (oil), and so on. Specific assignments of topics to domains are available on request.

7. The specific equation is:

$$a_k = \frac{Q}{Q-1} \cdot \left(EV_k \cdot \frac{1}{Q} \right)^2$$

where a k is the adjusted inertia of dimension k .

8. The marginal frequencies reported in Table 5 are slightly different than those reported in Figure 1, since some respondents specified a topic but not an alter ($n = 3$) and some other specified an alter but not a topic ($n = 90$).

9. Here, "spouse" also includes domestic partners.

10. In *Suicide*, Durkheim argues that women are less "developed" than men because they evidence less social differentiation. It is amusing, then, to observe that if one used the same logic (though not recommended) one finds evidence of the obverse.

11. These asymmetries could arise because men and women code the same conversation differently, for example one could imagine that men could code a conversation about autonomy as a conversation about money and finances, whereas a woman could code it as a conversation about relationships.

12. Unfortunately we did not think to ask people who had nobody to talk to what they might have talked about if they had somebody, and vice-versa.

13. Given the small sample size, we used the Fischer Exact Test (FET), given that “under the null hypothesis of independence, an exact distribution that is free on any unknown parameters results from conditioning on the marginal frequencies in both margins” (Agresti 1990:60). The equation for FET is:

$$FET = \frac{\prod_i n_{i.}! \cdot \prod_j n_{.j}}{n! \prod_i \prod_j n_{ij}!}.$$

14. Let Pnw and Pw be, respectively, the proportion of isolate non-white and white individuals. The standard error of the difference of these two proportions is given by,

$$SE(p_{nw} - p_w) = \sqrt{\frac{p_w \cdot q_w}{n_w} + \frac{p_{nw} \cdot q_{nw}}{n_{nw}}},$$

where q = 1 - p. The confidence interval is obtained using Yates correction for normality:

$$- \frac{1}{2} \cdot \left(\frac{1}{n_{nw}} + \frac{1}{n_w} \right).$$

15. We tested the hypothesis that the likelihood of being an isolate was arrayed on marital status, with never-married individuals more likely to be isolated and married ones less likely to identify as such. Using Bartholomew’s test we find that the observed order departs significantly from expectations ($\chi^2 = 5.8565 > 5.098 = C_{0.05, 0.49}$). Here, we use the following equation,

$$\chi^2 = \frac{1}{P \cdot Q} \sum_i n_i \cdot (p_i' - \overline{P})^2,$$

where, the revised proportions for never-married and divorced individuals are given by their weighted average,

$$p_i' = \frac{30 \cdot 0.5 + 47 \cdot 0.553}{30 + 47}.$$

For three groups, then, C is constructed following (Fleiss, 1981); viz:

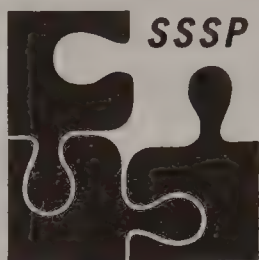
$$c = \sqrt{\frac{n_1 \cdot n_2}{(n_1 + n_2)(n_2 + n_3)}} = 0.49.$$

16. The total inertia of the matrix suggests a high concentration of the profiles toward the center of the space. The contraction for the horizontal dimension is (roughly) a factor of 8, for the vertical dimension (roughly) a factor of 13.

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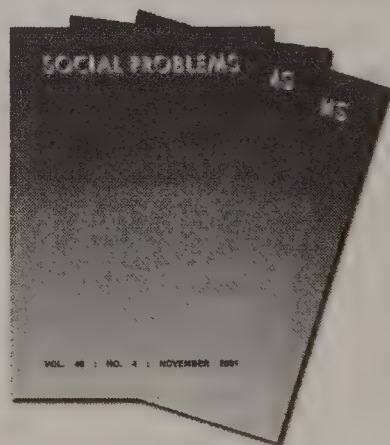
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Marriage Timing in Nepal: Organizational Effects and Individual Mechanisms*

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Abstract

Although researchers have consistently found effects of context on family behaviors, there has been less success in identifying the mechanisms of these effects. One reason may be that the measured mechanisms may not have been directly related to the contextual measures. In this article, I examine marriage timing in the Chitwan Valley of Nepal, a setting of rapid social change. Individual and neighborhood history calendars provide detailed, time-ordered information on individuals' behaviors and changes in the context of neighborhoods. I test how individuals' experiences with nonfamily activities mediate the neighborhood effects of nonfamily organizations such as schools, health care providers, employers, and cinemas. Results indicate that while both individuals' activities and neighborhood organizations influence marriage timing, there is mixed evidence that individuals' activities mediate neighborhood effects.

Sociologists have long studied the implications of social change for family behaviors (Elder 1981; Goode 1970; Ogburn & Nimkoff 1955; Thornton 2001). Social change, however, occurs at many levels of analysis, from changing individual actions to new organizations and institutions to global shifts of international relations and policy — all of which can influence family behaviors. These complexities force sociologists to conceptualize mechanisms that bridge multiple levels, and researchers have developed multilevel theories, data-collection strategies, and analytic methods to investigate them (Axinn, Barber & Ghimire 1997; Entwisle et al. 1997; Raudenbush & Bryk 2002). Many of these approaches have been used to study family outcomes both in the U.S. and in other countries. For example, in a study of teenage sexual behavior, Billy, Brewster, and Grady (1994) employ a data-collection strategy of appending census information to individual survey data;

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Lichter and colleagues (1992) follow a similar route in their analysis of marriage market effects on union formation in the U.S. In a study of child mortality in Brazil, Sastry (1996) uses data from multiple levels in addition to estimation methods that adjust for the clustering of children in households and municipalities. Furthermore, Entwisle and colleagues (1997) use spatial network analysis to study the linkages between individuals, neighborhoods, roads, and health centers that distribute contraceptives.

Despite these diverse settings, researchers commonly find that factors at a higher level of analysis influence individuals' family behaviors. A persistent issue is to identify the causal mechanisms that mediate these effects (Ainsworth 2002; Axinn & Yabiku 2001; South & Baumer 2000; South & Crowder 2000). Many researchers report that it is difficult to isolate the mechanisms through which higher-level factors, such as neighborhoods or institutions, influence individuals' marriage, fertility, or sexual behaviors (South & Baumer 2000). This issue is challenging, because the intervening mechanisms are almost limitless. Not only are there many concepts that can be fruitful mediators of neighborhood effects, there are several levels of analysis at which these phenomena can be measured: at the level of individual, the family, a small social or peer group, and finally the neighborhood. It is important to document mechanisms because they are critical points that can be targeted for further theoretical development or policy intervention.¹

In this article, I examine the effects of neighborhood organizations and services on marriage timing. To explore intervening mechanisms, I focus on individuals' activities and experiences. A strength of this article is that the individual activities are directly related to the neighborhood organizations, and both neighborhood organizations and individual activities are consistently measured across time. This measurement strategy at both the individual and neighborhood level increases the ability to document intervening mechanisms. The setting for this study is the Chitwan Valley, a rural yet growing area in south-central Nepal. Many of today's most rapid changes are happening outside Western countries: accelerated urbanization, increases in inequality, and altered modes of production characterize many regions in Africa and Asia (Brockerhoff 1999; Massey 1996). Although a single setting cannot be representative of these many diverse regions, the rapid transformations in Chitwan may provide insight into the interrelationships between social, economic, and family changes.

Setting

The Chitwan Valley is located in the Terai region of Nepal about 75 miles southwest of Katmandu, the capital city. The valley is a low-elevation area of rich farmland adjacent to India. For the first half of the 20th century, the area was uncultivated jungle with few inhabitants besides the native people who descended from various Terai Tibeto-burmese ethnic groups (Axinn & Yabiku 2001; Guneratne 1996). This

thick jungle area was infected with malaria, and tigers and rhinoceroses roamed freely. In the early 1950s, however, Nepal experienced land pressures from a growing population and a shortage of available farmland. To alleviate this shortage, the government, with assistance from USAID, deforested large sections of the Chitwan Valley (Axinn & Yabiku 2001; Guneratne 1996).

Once cleared, the Chitwan Valley was poised to experience tremendous changes. By the early 1960s, migration to Chitwan and surrounding areas had accelerated greatly (KC & Suwal 1993). In 1979 an all-weather road connected Chitwan to Katmandu (Axinn & Yabiku 2001; Guneratne 1996). A road connecting India to Katmandu, by way of Chitwan's city of Narayanghat, was completed next. This road transformed Narayanghat into a major transportation hub, because nearly all goods that arrive from India, Nepal's largest trading partner, come by truck and now pass through Chitwan.

A rapidly expanding population, growing wealth and productivity from newly created farmland, increasing links to Katmandu and the world: These large changes in the valley accompanied many social changes in the organization of people's lives. One of these social changes was the increase in nonfamily organizations and services, such as schools, health clinics, and employers. In the late 1940s, on the eve of the valley's transformation, there were no schools or health clinics in the Chitwan Valley. By the 1990s, there were more than 100 schools and 80 health clinics (Axinn & Yabiku 2001). Employers also are now widespread, and there are places such as mills, farms, a paper factory, tourist hotels, and restaurants where individuals work for pay.

These changes in the past fifty years have affected the lives of individuals living in Chitwan. One domain of life that has changed is marriage timing. Young adulthood is a time in the life course when other activities and experiences can postpone marriage (Rindfuss 1991). In Chitwan, alternatives to marriage for young people were uncommon in the early 1950s, but experiences that delay marriage have steadily increased with the valley's topographic and social transformations.

This shift in marriage timing is a critical change. In Nepal, marriage is virtually a universal experience, unlike the U.S., where, for example, the proportion of women who never marry is estimated to be as high as 10% for whites and nearly 30% for blacks (Oppenheimer 1997). Thus, any changes in marriage timing in Nepal would affect large segments of the population. These changes have broad implications for Nepal's future population growth, educational attainment, intergenerational relationships, and gender egalitarianism. How neighborhood nonfamily organizations affect marriage is also a fundamental question related to how large-scale social change influences individual lives (DiPrete & Forristal 1994; Huber 1990).

Theories and Hypotheses

To construct my hypotheses, I use the family modes of organization framework (Thornton & Fricke 1987; Thornton & Lin 1994). The framework proposes there are two ideal types of family organization on two ends of a continuum (Axinn & Yabiku 2001; Thornton & Lin 1994; Yabiku, Axinn & Thornton 1999). At one end is the family mode of organization. In this ideal type, all of an individual's recreation, consumption, protection, production, and socialization are centered on the family. The other end is the nonfamily mode of organization, where an individual's activities are centered on nonfamily organizations, such as schools, businesses, and governments. No society's family organization is likely to be at either of these two extremes, but societies will fall somewhere along this continuum (Thornton & Lin 1994). The family modes of organization framework helps researchers hypothesize how fundamental social changes can modify family organization, which subsequently alters individuals' opportunities, constraints, and behaviors. In the Chitwan Valley, the organizations and services likely to affect an individual's family patterns are places of employment, schools, health care institutions, places of entertainment and leisure, and transportation infrastructure.

EMPLOYERS

Until the early 1950s, Chitwan was sparsely populated, and there were few opportunities for employment in this jungle-covered region (Axinn & Yabiku 2001; Guneratne 1996). Once the area was cleared and the population expanded, opportunities for wage labor grew. Although many people work on farmland they own or rent, now Chitwan residents also work in restaurants, factories and mills, hotels, and stores. Employment is likely to affect marriage timing, but the direction of the effect depends on the sex of the individual.

For men, employment is predicted to accelerate marriage. Nepal is a highly gender-segregated society. Both sexes contribute to work on family-organized production: plowing, seeding, and harvesting crops and caring for animals. It is mostly men, however, who take wage labor opportunities outside the home's agricultural work. In Nepal in the year 2000, it was estimated that of all economically active women, only 2% were working outside agriculture, compared to 10% of men (United Nations Food and Agriculture Organization 2003). For men in Chitwan, as in other settings, employment outside the home may be part of a family-building strategy in which men earn income so that they can marry and start a family (Becker 1991; Goldscheider & Waite 1986; Malhotra 1997). Men's economic standing has long been associated with family formation in industrialized settings (Oppenheimer 1994), and there may be a similar relationship in Chitwan — an agricultural area with modest yet growing opportunities for employment. For women, however, employment is predicted to delay marriage. In Nepal, working outside the home is uncommon for women, and this kind of employment may be

a sign of economic independence. Although it may be acceptable for men to combine spouse and employee roles, it may be less acceptable for women.

SCHOOLS

Education is one of the most powerful forces that can change individuals' behaviors (Benavot 1989; Meyer, Ramirez & Soysal 1992). In contrast to the U.S., Chitwan does not have a long history of education. In 1950 there were no schools in western Chitwan, the study area of this article. Although the number of schools increased to over 100 by 1995 (Axinn & Yabiku 2001), educational attainment still is low. Among people in Chitwan 25 to 29 years old in 1996, the average years of schooling completed was only 5.4, and one-third had no education, suggesting great variance in schooling experiences. In Chitwan, schools are institutions that can exert powerful change. The opening of a new school may mean the first opportunity a community ever had for its children to obtain an education.

There are at least three mechanisms by which schooling can affect marriage timing in Chitwan: young people's independence from elders, young people's temporary removal from the marriage market, and young people's attractiveness as mates. Schools take socialization away from elders within the home and give control to unrelated individuals outside the home (Thornton & Lin 1994). When parents lose authority over their children, young people are more likely to make their own decisions about marriage (Malhotra 1991; Thornton, Chang & Sun 1984). In Chitwan, this may mean they eschew the early marriage patterns of their parents' generation.

Another way schooling delays marriage is that school enrollment can temporarily remove young people from the marriage market. There is often a strong role conflict between the student and spouse role (Blossfeld & Huinink 1991; Raymo 2003; Thornton, Axinn & Teachman 1995). This may be especially true in Chitwan. Even public schools have costs and required fees. Parents may pressure enrolled children not to marry because it would disrupt their child's education and waste the parents' investment. I predict that being enrolled in school will be associated with a decreased risk of marriage (Blossfeld & Huinink 1991; Tambashe & Shapiro 1996; Thornton, Axinn & Teachman 1995).

Last, schooling affects marriage rates because education alters the attractiveness of young people on the marriage market. Although being enrolled in school deters marriage, once individuals leave school, the educational capital they have accumulated could increase their marriage rates (Blossfeld & Huinink 1991; Thornton, Axinn & Teachman 1995). Chitwan is overwhelmingly a Hindu society, and Hindu culture has long valued education for its status and prestige (Olivelle 1999). Even though average educational attainment in Chitwan is lower than in industrialized countries, the level of attainment still varies widely, and individuals with higher levels of education may be valued as partners. This effect, however, is likely to differ by sex. I predict a positive association between educational

attainment and marriage rates for men, but a negative association for women. One reason for this asymmetry is that educational attainment is likely to be related to employment opportunities, which often increase men's marriage rates yet decrease women's. Although employment outside the home is rare for women, when women do have these experiences, it may delay their marriages. Another reason for the asymmetry is the preference for husbands to be more educated than wives, which is common in East and South Asia (Jejeebhoy & Sathar 2001; Leete 1987; Rao 1993). A highly educated man will have relatively little trouble attracting a woman with less schooling than he has, but a highly educated woman may spend considerable time attracting a husband. Individuals with "rare traits" often have longer search times to locate a spouse (Becker, Landes & Michael 1977).

HEALTH CARE

Before the spread of health clinics, health posts, and hospitals, family or informal healers provided health care and protection in Chitwan. This reaffirmed the authority of parents and elders, which made it less likely that children would disobey parental wishes. When health care organizations are accessible, however, parents' authority may be diluted through at least two mechanisms. First, doctors and health care providers compete with parents and elders as authority figures (Thornton & Lin 1994). A second mechanism is that health care organizations provide information and skills to empower young people. In Chitwan, many clinics offer contraceptives. When young people are exposed to these practices and information, it may empower them with feelings of control and planning over their life course (Thornton 1985). Young people may learn that marriage and sexual activity are not necessarily linked. Women may plan for educational or employment careers knowing that childbearing can be controlled. Health care visits, therefore, are likely to delay marriage because it exposes young people to possibilities of control over their family formation while at the same time diluting parental authority.

CINEMA

Cinemas — and media exposure in general — can expose young people to new ideas, images, and family patterns (Bongaarts & Watkins 1996; Caldwell 1982; Thornton 2001). Some movies shown in Chitwan come from outside Nepal. Popular Indian films often involve the themes of young people in love who disobey parental wishes for an arranged marriage. American films usually show family patterns that are different from historical Nepali behaviors. Instead of early marriage and high fertility, American films show scenes of young adults making their own choices in marriage and scenes of families with two or three children, not five or six.

Both American and Indian films often feature individuals who are wealthy and have the latest fashions, expensive cars, and large houses stocked with branded

consumer goods. Images such as these can raise aspirations (Freedman 1979; Thornton 2001). This mechanism may seem simplistic, but it is important to focus on the context in which these films are watched (Schudson 1989). The quality of homes in Chitwan varies, but most do not have running water, and many have thatched roofs. Few individuals own cars, and televisions are found only in the wealthier households. What are considered necessities in industrialized countries would often be viewed as luxuries in Chitwan. To see actors on the screen treating these things as commonplace items is likely to raise aspirations. Young people in Chitwan may feel that one way to reach these aspirations is to mimic the family behaviors shown in films (Freedman 1979; Thornton 2001). I predict, therefore, that movie watching will have a negative effect on marriage rates.

TRANSPORTATION

Transportation is different from the previous organizations and services in that transportation is not an end to itself, but instead it is a means to participating in other activities (Jacoby 2000). For example, the valley's largest city of Narayanghat (located next to Bharatpur, the Chitwan district headquarters) is a growing urban center with opportunities for employment and leisure, but it is too far to bike or walk for many Chitwan residents. With bus service, however, nearly anyone in Chitwan can ride the bus to Narayanghat and return in the same day. The mechanism that influences individuals is not transportation itself, but the expanded geographic realm that public transportation gives to individuals. There is a tension, however, in hypothesizing an effect of transportation services because transportation provides access to some organizations that increase marriage rates (schooling and employment for men), while at the same time it can give access to mechanisms that delay marriage (schooling and employment for women, cinemas and health clinics for both sexes). I hypothesize a negative association between marriage rates and transportation services, but competing effects may dilute this association.

In sum, a variety of nonfamily organizations and services have spread in the last 50 years in Chitwan. These neighborhood organizations dilute parental authority, increase young people's independence, and introduce new ideas that are often incompatible with historical family patterns. In studies of neighborhood effects, one usual assumption is that the mechanism of the effects consists in individuals' participation in the services offered by neighborhood organizations. I test this assumption by estimating the effects of both neighborhood organizations and individuals' experiences.

Besides individual participation, other mechanisms might mediate neighborhood effects. Another hypothesis is that neighborhood organizations influence neighborhood residents who then affect individuals. For example, South and Baumer (2000) point to peer group norms and the attitudes and behaviors of other community residents as mechanisms. Local social norms have been suggested to influence family behaviors (Brewster 1994), and mechanisms such as peer

congregation and social networks may be important (Bongaarts & Watkins 1996; Watkins & Danzi 1995). These mechanisms are consistent with previous theoretical work that suggests group members may reward or sanction an individual's behavior (Homans 1950).

Another mechanism could be called the effect of proximity. Even if the individual does not participate in the organization, he or she sees others doing so: other young people going to and coming from school; people lining up or getting off at a bus stop. Sociologists as early as Mead (1934) proposed that individual behavior can be influenced by taking the role of the other (Heimer & Matsueda 1994). Simply observing an object or situation stimulates individuals to infer a potential relationship between them and the situation (Woelfel & Haller 1971). Even an individual who has been excluded from these organizations is likely to imagine how he or she would go to school, see movies, or purchase consumer goods with money earned from employment. By seeing and learning from others, proximity to neighborhood organizations may raise aspirations and change behavior (Bongaarts & Watkins 1996).

Although these alternative mechanisms of neighborhood effects may exist, I test only the mechanism of individual participation. If individual experiences fail to mediate neighborhood effects, then these results would be consistent with the social influence of peers and neighbors or effects of proximity to organizations. Yet until these other mechanisms are directly measured, inferences about them must be made with caution.

Data and Methods

Fielded in 1996, the Chitwan Valley Family Study consists of a multifaceted data collection. The study area encompasses 93 square miles in the western region of the Chitwan district. From a systematic sample of the entire Chitwan Valley, 171 neighborhoods were selected. Because conceptualizing the neighborhood is difficult and sometimes artificial (McKenzie 1921), it is important to define the neighborhood so that it is relevant to the area being studied (Sampson, Morenoff & Gannon-Rowley 2002). The study defined neighborhoods as naturally occurring clusters of five to 15 households. In Chitwan, the typical residential geography is a cluster of households surrounded by tracts of farmland. These clusters are contiguous units of individuals that know each other and frequently interact. All individuals 15 to 59 years old (plus their spouses of any age) in households in selected neighborhoods had administered to them both an individual interview and a life-history calendar (Axinn, Pearce & Ghimire 1999).² The analysis sample contained 4,534 individuals.

DEPENDENT OUTCOME: HAZARD OF TRANSITION TO FIRST MARRIAGE

Event-history models are appropriate to model duration data that may be right-censored. Discrete-time event history is used for two reasons. First, the timing of events was measured to the nearest year, and thus there are ties in the data, a situation that discrete-time models easily incorporate (Allison 1995a). Second, many time-varying covariates are used as predictors, which can be conveniently included in a person-year file (Allison 1995a). The dependent variable is coded 0 until the year of the respondent's first marriage, after which it is coded 1, and the respondent no longer contributes person-years. Respondents who do not marry are censored.

NEIGHBORHOOD ORGANIZATIONS AND SERVICES

Neighborhood history calendars measured the neighborhood's distance, in terms of minutes walking, to a variety of organizations and services (Axinn, Barber & Ghimire 1997). Groups of respondents in each neighborhood provided retrospective, time-varying information for all years from 1995 back to 1953. Schools were defined as places of instruction for children of any age or grade. Health clinics were defined as any places of care and healing, such as doctors' offices, hospitals, and health posts. Employers were any places that employed 10 or more people for pay. Cinemas were movie theaters or halls where movies were shown. Bus stops were any places where people could obtain a ride for pay on a vehicle.

The neighborhood measures were recoded to indicate whether the nearest organization or service was within a five-minute walk. The justification for dichotomizing these measures is both empirical and theoretical. Empirically, previous research indicates that using a very close proximity indicator tends to give stronger results (Axinn & Yabiku 2001). Theoretically, when these organizations are very close they become a part of everyday life. Not only are the organizations available for participation, but the everyday repetition of seeing others use these organizations can affect attitudes, aspirations, and behaviors (Bongaarts & Watkins 1996). A five-minute walk is about one-quarter of a mile, which represents a close geographic radius.

These measures of neighborhood organizations, however, have limitations. The data indicate neither the presence of similar organizations beyond the nearest one nor the specific features of the organizations. Although the single five-minute cutoff may not be ideal, it is likely to result only in measurement error and less precision. Sensitivity analyses were conducted in which the five-minute cutoff was changed to a ten-minute cutoff and actual minutes, and the results were similar. Furthermore, the data have innovations compared to previous studies of neighborhood effects on family behaviors in rapidly changing settings. Many studies use a simple urban-rural distinction, which is meant to capture the expanded organizations and opportunities that are more prevalent in urban areas (Givens & Hirschman 1994; Goodkind 1996; Malhotra 1997; Singh & Samara 1996). The

data in the present article decompose this dichotomy into distinct mechanisms (e.g., increased access to employers, schools, transportation, media, and health care).

INDIVIDUAL ACTIVITIES

The measures of individual activities are time-varying and are lagged one year. Lagging helps to reduce the possibility that the dependent outcome is causing variation in the predictors. School enrollment is coded 1 if currently enrolled, 0 otherwise. School accumulation is the cumulative number of years the respondent has attended school. Health care visits is coded 0 for every year until the respondent first visits a health clinic, after which it is coded 1. Nonfamily employment is coded 1 if the respondent currently works for an employer outside the home and 0 otherwise. Movie watching is coded 0 for every year until the respondent first sees a movie, after which it is coded 1. Unfortunately, there was no information on respondents' bus ridership or other public transportation. This is not a major limitation. It is not riding a bus that is likely to influence behavior, but the greater access to distant activities that the bus allows. Thus as intervening mechanisms of bus transportation I substitute all the individual experiences (schooling, nonfamily work, health care, and movies), because these are likely destinations.

CONTROLS

Sex is coded 1 if female, 0 if male. A respondent's birth cohort can represent differential exposure to historical events (Elder 1994; Ryder 1965), and birth cohort is measured with dummy variables to indicate four age groups: respondents born 1972 to 1981, 1962 to 1971, 1952 to 1961, and 1937 to 1951. Ethnicity is measured with a series of dummy variables corresponding to the five major ethnic-religious divisions in the Chitwan Valley: upper-caste Hindu, lower-caste Hindu, Newar, Hill Tibeto-burmese, and Terai Tibeto-burmese.³

Parental background is controlled because parents can strongly influence their children's behavior (Axinn & Thornton 1992). Father's schooling is coded 1 if the father ever went to school and 0 otherwise. Mother's number of children is coded as the number of children the respondent's mother had. Parental work experience is assigned 1 if either parent worked outside the home before the respondent was age 12 and 0 otherwise. Parental movie experience is coded 1 if either parent saw a movie before the respondent was age 12 and 0 if not.

As with the neighborhood measures, some measures of individual experiences and parental controls lack detail. Although schooling and employment status are measured for every year, several parental background measures and individuals' experiences with health clinics and movies are captured only with a dichotomous measure to indicate ever experiencing these activities. Thus the intensity of involvement with these experiences is unknown. This lack of detail, however, is likely to result in less measurement precision and a conservative estimate of effects.

One advantage to the movie and health clinic measures is that they are time-varying: While the variation in the number of movies watched is unknown, the measure captures the variation in the age at which a movie was first viewed. Also, the present article overcomes some limitations in previous studies because it measures both organizations and individuals' experiences with those organizations. Some parental measures also have limited detail, but in the parental generation, exposure to these activities was relatively low. Furthermore, I control for parental experiences across several domains (schooling, employment, movies, and fertility). This may alleviate the weaknesses of any single parental background measure.

Discrete-time event-history methods involve several important issues and assumptions. One issue is the parameterization of time. Unlike a Cox model, which allows the baseline hazard to remain unspecified, the hazard in a discrete-time model must be specified (Allison 1995a). I specify the hazard of marriage as a quadratic function, using two parameters: time and time squared (Axinn & Yabiku 2001; Raftery, Lewis & Aghajanian 1995; South 1999).⁴ Another consideration is when exposure to risk begins. In this article, the risk is first marriage. I start the hazard at age 12 to preserve the proper time ordering of important parental variables: parents' work and movie experiences.⁵ Last, discrete-time models assume that the effects of predictors are proportional across time (Allison 1995a). For example, the model assumes that the effect of schooling enrollment is the same for an eight-year-old and an eighteen-year-old respondent. A life-course framework, however, suggests that the effects of exposure to events may depend on an individual's age (Elder 1994). In Chitwan, participation in nonfamily activities may have stronger effects earlier in the life course. Due to their ideational component, activities such as movies and schooling at younger ages may be especially effective at influencing young people's behavior. I test proportionality assumptions by interacting these predictors with time.

A final methodological consideration is the clustering in the data. There is dependence between sampled individuals in the same neighborhood. If clustering is ignored, it can lead to bias, most likely in the form of deflated standard errors. One way to incorporate clustering is to estimate multilevel models, which have been used successfully in event-history analyses of family behaviors (Axinn & Barber 2001; Axinn & Yabiku 2001; Barber et al. 2000; Steele, Diamond & Wang 1996). I allow a random effect in the intercept. These models are typically called random intercepts models, and they allow the intercept to vary by neighborhood.⁶

The analytic strategy is to estimate the effects of the neighborhood organizations on the rate of first marriage. Next, individual activities are included in the models as potential intervening mechanisms. The degree to which the effects of neighborhood organizations change will informally reflect the mediation of effects provided by the individual activities.

TABLE 1: Descriptive Statistics

	Mean	Std. Dev.	Min.	Max.
Nonfamily organizations within five-minute walk (time-varying variables, lagged one year)				
School	.39	.49	0	1
Health care	.19	.39	0	1
Employer	.18	.38	0	1
Cinema	.03	.16	0	1
Bus stop	.34	.47	0	1
Individual nonfamily experiences (time-varying variables, lagged one year)				
School enrollment	.33	.47	0	1
Years schooling accumulated	6.0	5.4	0	25
Ever visited health care	.63	.48	0	1
Worked in previous year	.35	.48	0	1
Ever saw movie	.67	.47	0	1
Controls				
Female	.50	.50	0	1
Cohort				
Born 1972–81	.39	.49	0	1
Born 1962–71	.26	.44	0	1
Born 1952–61	.19	.39	0	1
Born 1937–51	.16	.37	0	1
Parental background				
Father went to school	.32	.47	0	1
Mother's number of children	5.7	2.5	1	20
Parents worked outside home	.51	.50	0	1
Parents ever saw movie	.45	.50	0	1
Ethnicity				
Upper-caste Hindu	.47	.50	0	1
Lower-caste Hindu	.11	.32	0	1
Newar	.06	.25	0	1
Hill Tibeto-burmese	.17	.38	0	1
Terai Tibeto-burmese	.18	.38	0	1
(N = 4,534)				

Results

Descriptive statistics are presented in Table 1. Starting with the controls, the sample was equally divided between men and women. The sample was most populated with individuals from the youngest cohort: 39% were born between 1972 and 1981,

but only 16% were born between 1937 and 1951. This distribution is expected because Chitwan, like many high-fertility settings, has a young age structure. Nearly half the sample (47%) was upper-caste Hindu, which is the majority ethnic group in Chitwan. Newars were the smallest group at only 6%. The Terai Tibeto-burmese (the original inhabitants of the area who were once its only occupants) now comprise about 18% of the sample.

Parental background measures show that respondents came from households in which less than a third of fathers ever went to school, and their families averaged close to six children. The parental generation had modest exposure to emerging nonfamily activities: about half of parents had ever worked outside the home for pay or saw a movie before the respondent was 12 years old.

Note that measures of respondents' nonfamily experiences are time-varying, and a point in time must be chosen at which to evaluate the mean. If all person-years were averaged, unequal weight would be given to respondents who had longer durations until marriage or censoring. I evaluate the means at the final observed year (the year of marriage or censoring). About one-third of respondents were enrolled in school in the previous year, and average educational attainment was six years. About 63% of respondents had ever been to a health clinic or other health care provider, and 35% had worked for pay outside the home sometime in the previous year. About two-thirds had ever seen a movie. As expected, the level of participation in these nonfamily activities is higher in the respondent generation. Greater participation by respondents relative to their parents corresponds to the expansion of nonfamily organizations and services.

The means for having organizations and services within a five-minute walk are also presented in Table 1. Of all the nonfamily organizations and services, schools are the most prevalent, with 39% of respondents within a five-minute walk of a school in the year prior to marriage or censoring. Bus stops within a five-minute walk were also readily available for 34% of respondents. Health care providers and employers were less common, with slightly less than 20% of respondents near these organizations. Cinemas were the least accessible organizations in terms of walking distance: only 3% of respondents lived in neighborhoods within a five-minute walk of places to see movies.

Table 2 begins the multivariate analysis. I first examine the controls. The results of the hazard models are presented as odds ratios, which are the antilogs of the logistic regression coefficients. A coefficient greater than 1 represents a positive effect that accelerates the rate of marriage, while a coefficient less than 1 is a negative effect that delays marriage. Because effects are multiplicative, an effect equal to 1 is a null effect that does not influence the rate.⁷ In model 1, there is a strong positive effect of being female on the rate of marriage. Women marry at rates that are more than 3.6 times that of males, but this is expected. Women in Nepal, as in most settings, marry men who are older than they are, and thus women enter marriage more quickly than similarly aged men. There were also significant cohort

TABLE 2: Effects of Nearby Nonfamily Organizations and Services on Rate of Marriage

	1	2	3	4	5	6
Nonfamily organizations within five-minute walk						
School	.90* (-1.98)					.90* (-1.88)
Health care		.89* (-1.71)				1.01 (.16)
Employer			1.03 (.40)			1.16* (1.69)
Employer * female			.90 (-1.00)			.88 (-1.21)
Cinema				.69* (-2.27)		.70* (-1.98)
Bus stop					.83*** (-3.44)	.84** (-2.89)
Controls						
Female (1 = female, 0 = male)	3.65*** (30.38)	3.64*** (30.33)	3.71*** (28.60)	3.64*** (30.28)	3.65*** (30.46)	3.72*** (28.80)
Cohort†						
Born 1972–81	.44*** (-12.16)	.44*** (-12.31)	.43*** (-12.64)	.43*** (-12.84)	.46*** (-11.53)	.46*** (-11.15)
Born 1962–71	.85** (-2.91)	.84** (-3.13)	.83*** (-3.36)	.83*** (-3.31)	.86** (-2.65)	.87* (-2.36)
Born 1952–61	1.13* (2.04)	1.12 (1.90)	1.11 (1.74)	1.11 (1.87)	1.14* (2.24)	1.15* (2.41)
Parental background						
Father went to school	.89* (-2.26)	.89* (-2.21)	.89* (-2.24)	.89* (-2.23)	.90* (-2.15)	.90* (-2.14)
Mother's number of children	1.02* (2.23)	1.02* (2.20)	1.02* (2.22)	1.02* (2.18)	1.02* (2.18)	1.02* (2.20)
Parents worked outside home	1.00 (.06)	1.00 (.12)	1.00 (.11)	1.00 (.11)	1.01 (.15)	1.00 (.09)
Parents ever saw movie	.94 (-1.36)	.94 (-1.39)	.94 (-1.43)	.94 (-1.31)	.94 (-1.25)	.95 (-1.19)

differences. As expected, the younger cohorts married more slowly than the older cohorts: individuals born between 1972 and 1981 married at rates 56% less than the oldest cohort (1.00 – .44 = .56), and the cohort born between 1962 and 1971

TABLE 2: Effects of Nearby Nonfamily Organizations and Services on Rate of Marriage (Cont'd)

	1	2	3	4	5	6
Controls (cont'd)						
Ethnicity ‡						
Lower-caste	1.35***	1.35***	1.35***	1.34***	1.34***	1.34***
Hindu	(4.20)	(4.23)	(4.23)	(4.14)	(4.17)	(4.11)
Newar	.75***	.75**	.75**	.75**	.76**	.77**
	(-3.32)	(-3.21)	(-3.28)	(-3.20)	(-3.10)	(-3.00)
Hill Tibeto-burmese	.73***	.73***	.73***	.73***	.74***	.73***
	(-5.01)	(-4.95)	(-4.91)	(-5.00)	(-4.78)	(-4.96)
Terai Tibeto-burmese	1.22**	1.21**	1.22**	1.21**	1.20**	1.20**
	(2.89)	(2.76)	(2.84)	(2.76)	(2.60)	(2.59)
Time	1.58***	1.58***	1.58***	1.58***	1.59***	1.59***
	(33.16)	(33.14)	(33.02)	(33.09)	(33.34)	(33.31)
Time ²	.98***	.98***	.98***	.98***	.98***	.98***
	(-21.35)	(-21.35)	(-21.30)	(-21.33)	(-21.37)	(-21.35)
Intercept	.01***	.01***	.01***	.01***	.01***	.01***
	(-46.33)	(-46.44)	(-46.20)	(-46.36)	(-46.59)	(-46.33)
Neighborhood variance	.06	.06	.07	.06	.06	.06
N (person-years)	34,301	34,301	34,301	34,301	34,301	34,301

†Born 1937–51 is the reference group.

‡Upper-caste Hindu is the reference group.

* $p < .05$ ** $p < .01$ *** $p < .001$ (one-tailed tests, except two-tailed tests for controls)

married at rates 15% less. The trend, however, was not monotonic. The cohort born between and 1952 and 1961 married at rates significantly higher than the oldest cohort.⁸

Some parental background measures influenced individuals' transition to first marriage. Individuals whose fathers ever went to school married at rates that were 11% lower than individuals whose fathers did not have schooling experience. Coming from higher-fertility families raised marriage rates: for each additional child that an individual's mother had, the rate of marriage increased by 2%. The effect size of 2% may not seem important, but as shown in Table 1, family size averaged nearly six children, and there was substantial variation (standard deviation was 2.5 children). Parental work and movie experiences did not affect the rate of marriage at the .05 significance level. I leave these predictors in subsequent models because there are theoretical reasons to control for these parental experiences when

estimating the effects of these same experiences in the respondent generation. Also in model 1 were some ethnic group differences. Compared to the reference group of upper-caste Hindu, lower-caste Hindu and the Terai Tibeto-burmese had higher marriage rates. Newars and Hill Tibeto-burmese had significantly lower marriage rates. Although there are ethnic differences in rates, I do not investigate potential interactions of ethnic group with other controls or the substantive variables of the hypothesis tests. There are not preexisting theoretical reasons to believe that effects would differ by ethnic group, and the multiple tests would likely increase Type I errors (Bielby & Kluegel 1977). Last, the time parameters for the duration of the hazard indicate a quadratic trend.

The model recognizes the clustering in the data with a random coefficient for the intercept. The random effect is listed in Table 2 as the estimated neighborhood variance, which varies from .06 to .07. In this nonlinear model, one way to examine the extent of clustering is to calculate the variance partition component, which can be interpreted as an intraclass correlation and is calculated by dividing the neighborhood variance by the sum of the neighborhood variance plus the variance for the standard logistic distribution, $\pi^2/3$ (Goldstein, Browne & Rasbash 2002). In model 1, the variance partition component is only .054, which suggests relatively little neighborhood clustering. Subsequent models in later tables also have low values for variance partition component, and thus I do not address this further.

The substantive hypothesis in model 1 examines the effect of having schools within a five-minute walk. As predicted, when schools are within a five-minute walk, individuals marry at lower rates. Individuals with nearby schools married at only .90 times the rate of individuals without nearby schools — about 10% lower. This result is consistent with the hypothesis that having schools nearby affects the marriage behavior of individuals. Whether the mechanism of this effect is through enrollment in that school or some other mechanism is examined later.

Model 2 shows the effects of health care services on the rate of marriage. This nonfamily organization also shows a negative effect on the marriage rate. When health care services are nearby, young people may participate in the offered services, which could increase feelings of autonomy over their life courses, weakening parental authority and leading to lower rates of marriage.

Model 3 shows the effects of having employers within a five-minute walk. Recall that employers were defined as the nearest place of employment of 10 or more individuals. Unlike the previous two community measures, employers fail to significantly affect marriage timing. An interaction of employers with gender was estimated because employment tends to increase the marriage rates of young men (who often are in a family-building point in life) but decrease the rates of young women. This effect of employers, however, was not significant.

In model 4 I test the effects of having cinemas within a five-minute walk. As hypothesized, when cinemas are near, respondents have lower rates of marriage. Compared to an individual without a nearby cinema, respondents who lived near places where movies were shown had rates of marriage that were 31% lower. At

cinemas, individuals might view movies that contain images and ideas very different from historical Nepali norms. This might stimulate higher consumption and educational aspirations (Freedman 1979), which can translate to later and reduced rates of marriage. In model 5, the results indicate that living near bus stops reduced the rate of marriage by 17% compared to respondents who lived farther away. It may be that proximity to public transportation allows individuals to ride buses and travel to distant nonfamily organizations and services.

In model 6, the effects of having nearby all the measured nonfamily organizations and services are estimated. This is an important model because it investigates whether the effects in models 1 through 5 are separate dimensions of neighborhood nonfamily organization. The results suggest that these organizations and services are not completely clustered together. Having schools, cinemas, and bus stops within a five-minute walk of the neighborhood each significantly reduces the rate of marriage. As in the separate model (model 3), in model 6 an employer within five minutes does not affect marriage timing significantly differently for men and women, as indicated by the insignificant employer * female interaction. Nor did an additional model (results not shown) without the interaction of employer * female indicate a significant effect.

Among the nonfamily organizations and services, the only major difference between the combined model 6 and the separate effects estimated in models 1 through 5 is the effect of health care services. This effect was significant in model 2, yet not in model 6. This may imply that health care services are clustered to other nonfamily organizations and services, which diminishes the unique effect that health care providers have.

In general, Table 2 suggests that nonfamily organizations and services have significant effects on marriage timing. The results here are not unique in finding effects of the larger social, community, or neighborhood context on individual behavior (Sampson, Morenoff & Gannon-Rowley 2002). To explain these neighborhood or contextual effects, however, requires mechanisms to link these neighborhood features to individual outcomes. Table 3 examines individual experiences as potential intervening mechanisms.

Model 1 of Table 3 replicates model 1 of Table 2, except measures of individual schooling experiences have been added. Note that all previous controls from Table 2 are estimated in the model, but they are not displayed. The two schooling measures show strong effects on marriage timing. Being enrolled reduced rates of marriage by 54% from those of individuals who were not in school. This finding is consistent with the hypothesis that school enrollment creates conflict with family formation roles, such as marriage and parenthood (Blossfeld & Huinink 1991; Thornton, Axinn & Teachman 1995). There were no differences in this effect by sex, as indicated by the insignificant enrollment * female coefficient. Enrollment equally deters men and women from marriage. There were different effects by gender for schooling accumulation. For men, each year of schooling increased marriage rates by 3%. More rapid marriage of educated men supports the view that educational

TABLE 3: Effects of Nearby Nonfamily Organizations and Services and Nonfamily Experiences on Rate of Marriage†

	1	2	3	4	5
Individual experiences					
School enrollment	.46*** (-10.21)				.49*** (-9.00)
School enrollment * female	1.00 (.00)				.92 (-.67)
Years schooling accumulated	1.03*** (4.37)				1.03*** (4.42)
Years schooling accumulated * female	.96*** (-3.82)				.96*** (-3.61)
Ever visited health care		.87** (-3.08)			.91* (-1.96)
Worked in previous year			1.29*** (4.46)		1.15* (2.25)
Worked in previous year * female			.68*** (-4.39)		.72*** (-3.63)
Ever saw movie				.98 (-.39)	1.06 (1.15)
Nonfamily organizations within five-minute walk					
School	.93 (-1.42)				
Health care		.90 (-1.56)			
Employer			1.03 (.31)		
Employer * female			.91 (-.87)		
Cinema				.69* (-2.27)	
Bus stop					.83*** (-3.27)
Neighborhood variance	.05	.06	.06	.06	.05
N (person-years)	34,301	34,301	34,301	34,301	34,301

†Coefficients are odds ratios, with Z-statistics in parentheses. All controls from previous models are estimated in this table, but they are not displayed here.

*p < .05 ** p < .01 ***p < .001 (one-tailed tests)

capital is valued in the marriage market for husbands, and thus more education leads to higher marriage rates once these individuals exit schooling (Blossfeld & Huinink 1991; Thornton, Axinn & Teachman 1995). For women, however, educational attainment has little effect: each year of schooling decreases the rate of marriage by 1% ($1.03 \times .96 = .99$), and this effect is not significant.⁹ Effects for men but not for women are consistent with a setting where there are employment opportunities for men, but fewer opportunities for women to work outside the home. Thus women's educational capital is less valued in the marriage process.

It appears that these experiences do explain some of the effects of having schools nearby. In Table 2, the effect of having schools within a five-minute walk significantly reduced marriage rates, but in Table 3 this coefficient is no longer significant. This indicates that schooling experiences do mediate some of the effects of neighborhood schools. Individuals who live near schools may enroll in school, which decreases their marriage rates. When exiting these schools, marriage rates for men then increase, perhaps due to their increased attractiveness as mates. It would be unwise, however, to state that individual experiences *completely* mediate the effects of neighborhood schools. It is difficult to assess the formal statistical significance of coefficients when comparing a base model to one in which an intervening mechanism has been included (Allison 1995b; Clogg, Petkova & Haritou 1995). No universally agreed-upon methods are available to formally investigate intervening effects. Thus, the reduction in significance levels for the effects of neighborhood schools can only informally suggest intervening effects of individual schooling experiences.

Model 2 of Table 3 examines the intervening effects of individuals' visits to health care services. As hypothesized, ever having visited a health-care service reduces marriage rates by about 13% from those of individuals who had never visited such an organization. To assess this experience as an intervening mechanism, compare the significance of neighborhood health-care services in this model to model 2 of Table 2. As with schools, the effect becomes insignificant in Table 3, which is evidence that individual health-care experiences have some intervening effect. Again, these assessments of mediation are informal, but they do suggest individual experiences as intervening mechanisms.

In model 3, individual employment experiences are examined. Recall that an interaction of nonfamily employment with gender is included. For men, it is likely to be part of preparing for family building, and thus it leads to higher rates of marriage. For women, working outside the home may provide independence from family formation, and thus it can lead to lower rates of marriage. The results in model 3 support these hypotheses. The significant test statistic for worked in previous year * female indicates there are different effects for men and women (Allison 1977). For men, employment outside the home increases marriage rates by 29% from those of men who did not work. For women, in contrast, working outside the home decreases marriage rates by 12% from those of women who did

not work ($.68 \times 1.29 = .88$). The effects of employers within a five-minute walk of the neighborhood was not significant in Table 2, and thus there is little reason to investigate an intervening effect. The reader, however, can compare models 3 in Table 2 and Table 3 and see that the insignificant effects of neighborhood employers are little changed.

The effect of ever having seen movies is examined in model 4, but it is not significant, and it is highly unlikely that it can be an intervening mechanism of neighborhood cinemas. As expected, the effects of having a cinema within a five-minute walk is unchanged between Table 2 and Table 3.

In model 5, I test for intervening mechanisms of having bus stops within a five-minute walk. In this model I include all the previous individual experiences: schooling, health-care visits, employment, and movies. It is reasonable that a use of public transportation would be to access these nonfamily organizations and services. The results of this model, however, do not indicate that any of these nonfamily experiences mediates the effect of bus stops. The significant effect of bus stops in model 5 of Table 2 remains in model 5 of Table 3. This model also implies that the effects of individual experiences are independent from one another: The significance levels of experiences in model 5 are little changed from models 1 through 4 in which effects of experiences are estimated separately.

In addition to the models in Table 3, I examined models in which I tested whether the effects of activities and organizations varied across the duration of the hazard (tables not shown). There was no evidence of nonproportionality in the effects of organizations within a five-minute walk. With individual activities, there was evidence that visiting health clinics and seeing movies had stronger effects on delaying marriage if these activities were initiated earlier in the life course. These results suggest the importance of differential exposure across the life course (Axinn & Yabiku 2001; Elder 1994). When individuals initiate these experiences early, it may form lifelong ways of thinking about independence and parental authority. The effects of schooling accumulation did not vary across time for either sex. The effects of schooling enrollment did not vary by time for men, but schooling enrollment had a stronger effect on delaying marriage for younger women. This may be because parents who enroll their female children in school are less likely to desire an early marriage for their daughters. For men, effects of employment did not vary across time, while for women employment had stronger effects in delaying marriage later in the life course. It is likely that employment had stronger effects later because employment is an activity that usually happens later in the life course, as opposed to the exposure to movies or health care, which young children may experience. These additional models that incorporate nonproportional effects of experiences, however, did not show additional mediation of neighborhood organizations. Thus conclusions are similar to those in Table 3.

Discussion

Previous research has noted the difficulty in finding intervening mechanisms of neighborhood and community effects on individual family behaviors (South & Baumer 2000). One reason for this difficulty may be that the intervening mechanisms used for mediation may not have been directly related to the neighborhood measures. A strength of my article is that it has presented a detailed test of neighborhood nonfamily organizations and the possible intervening effects of individual experiences closely related to those organizations.

Of the five neighborhood nonfamily organizations and services examined, four significantly reduced marriage rates: schools, health-care services, cinemas, and bus stops. The individual experiences also significantly reduced marriage rates, but these experiences had mixed results in mediating neighborhood effects. In the case of individual experiences with schooling and health-care visits, the effects of the neighborhood organizations became insignificant, suggesting mediation. Individual movie watching did not mediate cinema effects, and all the individual experiences as a whole did not mediate the effect of having bus stops near neighborhoods. Thus, the results partially echo previous research that has sought to identify intervening mechanisms of neighborhood effects: Mechanisms are not easily identified (South & Baumer 2000). These results have several implications for future research.

One set of implications pertains to measurement. More detailed measurement would likely improve the precision of the estimates and yield greater evidence for intervening mechanisms. For example, it would be beneficial if more than just the nearest organization was observed. Furthermore, other mechanisms might mediate the effects of neighborhood organizations and services: proximity to these organizations, peer congregation, and social networks (Bongaarts & Watkins 1996; Watkins & Danzi 1995). Social processes such as contagion and cohesion (Burt 1987) may be overlooked ways by which context affects individuals. Capturing these group-level social processes, however, will require creative measurement strategies. Such strategies may include methods from social network analysis in which not only are all individuals in a potential network interviewed (e.g., all individuals in a neighborhood), but data are also collected for the social links of friendship and influence between all network members (Wasserman & Faust 1989). It may also be necessary to measure not just networks centered on the neighborhood, but other foci of social life: the workplace, markets and shopping areas, leisure areas, and religious institutions.

Another implication is that studies of social change and marriage will benefit from a continued focus on neighborhood and organizational factors. In diverse settings, researchers have proposed rich theories of how social change at the societal level can influence marriage: economic instability in postunification East Germany and delayed marriage (Adler 1997); state socialism and the transformation of traditional wedding practices in Vietnam (Goodkind 1996); modernization and

decreasing preference for consanguineous marriage (marriage involving related individuals) in Iran (Givens & Hirschman 1994). Yet these and other previous studies of marriage in rapidly changing settings have tended to focus almost exclusively on individual-level experiences. Broader social and historical context may be considered, but usually with only a rural/urban dichotomy or cohort indicators. The results in my article and other work (Axinn & Yabiku 2001; Entwisle et al. 1997) suggest that family behaviors in dynamic settings change in response to factors at both the level of the individual and the level of neighborhood organizations. More comprehensive theories of how large-scale social changes affect family behaviors can be examined when organizational factors are explicitly theorized and modeled. Specifically, my results suggest that a focus on educational and health organizations may be particularly successful. Not only did these organizations affect behavior, but it was possible to document some intervening effects.

An additional step to study social change and family behaviors may be to incorporate something absent from my analysis: ideational factors. Ideational forces may be an underexplored link between organizational change and individuals' behaviors. Many of the new and expanding organizations in dynamic settings have an ideational component: for instance, schools, cinemas, and other mass-communication vehicles. In my article, these ideologies and their contents were not directly measured. Ideas, however, can be extremely powerful (Abdelrahman & Morgan 1987; Lesthaeghe & Surkyn 1988; Thornton 2001), and Goode (1970:369) stresses the importance of the "independent power of ideological variables." Ideas can have causal force even when structural conditions do not appear to support them: People's aspirations for themselves or their children can far outstrip their realistic schooling, material consumption, or employment opportunities (Freedman 1979). For example, research in Sri Lanka found that educated young women were delaying marriage despite the lack of employment opportunities that would have provided a structural or organizational support for later marriages (Malhotra & Tsui 1996, 1999). Results such as these are compelling evidence that linking organizational and institutional change to ideas and behavior will further describe the ways societal-level social change affects individuals.

Notes

1. For example, in a study of neighborhood effects on children's development, Brooks-Gunn and colleagues (1993) conclude that family income is an especially important factor. As a consequence, the authors suggest (385) that future studies should obtain richer measures of family income and wealth (which are often lacking in child development studies). And in her examination of community- and individual-level predictors of adult health, Robert (1998:18) suggests that "improving individual-level and family-level socioeconomic circumstances may be the more direct way to improve the health of individuals."

2. Several procedures were followed to ensure that data quality in the surveys was as high as possible (Groves 1987). Respondents were chosen through a true probability sample (Barber et al. 1997). The project trained interviewers from the local population who comprised both genders and various ethnic groups: thus all interviews could be administered in a native language among the several spoken in the valley. Of the respondents originally contacted for interview, fewer than 2% were refusals. To reduce measurement errors during the interview, the life-history calendars were specifically adapted to this population (Axinn, Pearce & Ghimire 1999). Furthermore, the data-entry process used a double-entry procedure to reduce keying errors, and respondents were recontacted to resolve discrepancies when their responses were suspect.

3. Unfortunately, a brief summary cannot delve into the many complexities of religion and ethnicity in Chitwan, but it may help to orient readers who are unfamiliar with these issues. Upper-caste Hindus have had the most advantages in Chitwan with respect to wealth, education, and well-being outcomes, being Hindu in a Hindu country (Axinn & Yabiku 2001). Lower-caste Hindus have also benefited, but not as much as the upper-caste Hindus. Newars have also done well, as they have incorporated many Hindu practices into their culture (Bista 1972). The remaining two ethnic groups have not been as assimilated as the Newars have, and they have less privileged positions. Hill Tibeto-burmese originate from the mountain areas around Katmandu, and they usually are employed as tenant farmers, day laborers, and servants (Bista 1972). The Terai Tibeto-burmese are the native people of the Chitwan Valley region (Axinn & Yabiku 2001). They were least able to take advantage of the land redevelopment and redistribution that occurred in Chitwan in the 1950s, and thus they were denied most of the wealth in the rapidly growing valley (Axinn & Yabiku 2001).

4. A quadratic function allows the hazard to increase and then decrease in an upside-down U shape. This shape describes many family processes, such as marriage, contraception, and childbearing. An alternative approach, which does not make unnecessary assumptions about the hazard's parametric form, is to assign a dummy variable to each time interval of the hazard's duration. This dummy variable approach did not differ substantively from the quadratic specification, and thus I chose the more parsimonious model that includes time and time squared.

5. In Chitwan marriage before the age of 12 did occur, though it is very rare now. About 3% of the respondents married before the age of 12, and I deleted these cases from the analysis. Although this could result in bias, separate analyses that did not omit the cases did not differ substantially. Thus I opted for the models that have the proper time ordering at the cost of removing the few respondents who had child marriages. Also removed are a small percentage of cases with missing values. The measure with the most missing data was the question about parent's movie watching: 1.4% of respondents could not answer this question. Because few cases were removed, it is unlikely this omission would substantially change conclusions based on these results.

6. Clustering by couple is not explicitly modeled even though there are husbands and wives in the data. When modeling the hazard with this retrospective data, individuals are single until the transition to marriage, after which their behavior no longer contributes to the model. Although married individuals are more likely to share unmeasured characteristics (Thomson & Williams 1984), the effect of clustering in an analysis of

premarital behavior is likely to be smaller than in an analysis of husbands and wives after they marry — when they have joint knowledge and coordination of their behaviors as a true couple.

7. In a discrete-time model, the odds ratio represents the effects of the predictor on the odds of marriage in year, given that the respondent has not married previously. When the number of events is small relative to the number of person-periods at risk, however, the rates are very close to the odds. Thus discrete-time methods approximate continuous-time methods as person-periods become shorter and shorter. Therefore, out of convenience I describe the effects of predictors as influencing the rate rather than the odds of marriage.

8. One would have expected a monotonic pattern in marriage rates, but a reason for this anomaly may be underrepresentation in the sample of older cohort members who married early. In the sample, the oldest cohort age range is from ages 45 to 59 as of 1996. The life expectancy at birth in 2000 in Nepal was only 60 years (United Nations 2000). Thus there may be slightly less representation of individuals from the oldest cohort who married earlier and who also may have had higher mortality.

9. The significance statistic for the effect of educational attainment for women cannot be discerned from this table, but estimating the model again, with women as the reference group, confirms that the effect is insignificant for women ($p = .34$).

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Global Civil Society and the International Human Rights Movement: Citizen Participation in Human Rights International Nongovernmental Organizations*

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Abstract

We examine patterns of citizen participation in the global human rights movement through memberships in human rights international nongovernmental organizations (HRINGOs). After showing enormous growth in the number of HRINGOs in recent decades, we investigate country level characteristics leading to greater participation in the international human rights movement. Drawing on the social movement literature and world society theory, we employ multivariate regression analyses to explain HRINGO memberships in 1978, 1988 and 1998. To understand changes over time, we also use panel analyses for 1978-88 and 1988-98. The strongest predictors of memberships in HRINGOs are found to be embeddedness in global civil society and international flows of human resources. The effects of these international factors grew stronger over time while domestic factors became less important.

Nongovernmental factors have been the engine of global expansion of human rights in the post World War II era (Lauren 1998; Weiss & Gordenker 1996; Wiseberg 1992). Among them are international nongovernmental groups such as Amnesty International and Human Rights Watch, which have played key roles in the formative years of global human rights by promoting international human rights instruments and publicizing gross human rights violations.¹ The contributions of

** The authors contributed equally to this research. We wish to thank John W. Meyer, Francisco O. Ramirez, David John Frank and Jackie Smith for especially helpful advice, as well as the members of the Stanford Comparative Workshop for suggestions related to this project. We also thank the anonymous reviewers for their helpful comments and suggestions. We gratefully acknowledge financial support from the National Science Foundation (NSF/SES-0214168, 2002), and the Bechtel Initiative on Global Growth and Change and the Center on Democracy, Development and the Rule of Law of the Stanford Institute for International Studies (Francisco O. Ramirez and John W. Meyer, principal investigators). Direct all correspondence to Kiyoteru Tsutsui, Department of Sociology, State University of New York at Stony Brook, Stony Brook, NY 11794-4356. E-mail: ktsutsui@notes.cc.sunysb.edu.*

human rights international nongovernmental organizations (HRINGOs) have become even more critical in the contemporary international human rights regime; their unsparing reports of local human rights practice all over the world have been essential in proceedings of United Nations (U.N.) human rights instruments such as the Commission on Human Rights and the Human Rights Committee. Many HRINGOs have gained official consultative status in the U.N., and have been actively promoting their visions of human rights standards into the new century.

Correspondingly, the existing literature has paid much attention to the activities of such organizations in the international political arena (Lauren 1998; Smith, Pagnucco & Lopez 1998; Weiss & Gordenker 1996; Wiseberg 1992). What the literature often downplays, however, are the individual activities of local constituencies, who find ways to connect with these organizations. Without their support, HRINGOs cannot carry out their key activities such as detailed reporting on local human rights practice and active promotion of global human rights models to local populations. Notwithstanding the importance of local constituencies, few studies have systematically examined cross-national variations in citizen participation in HRINGO activities. Why do certain countries have large numbers of citizens joining HRINGOs? Do they engage in international human rights activities because their governments' commitment to global human rights ideas encourages the citizens to follow suit, or is it the strength of local civil societies and their linkages to global civil society that lead individuals to get involved in HRINGOs?² Do individuals in advanced democracies join HRINGOs to promote their ideals in the world, or is it individuals under oppressive governments who join HRINGOs to gain leverage vis-à-vis local governments and to solicit help from external actors? This research addresses these questions by investigating the patterns of citizen participation in HRINGOs. Toward that end, we combine tools in two theoretical perspectives: the social movement literature and the world society approach.

In recognition of HRINGOs' contribution to the promotion of human rights and consequent social changes, we view involvement in HRINGOs as participation in the international human rights movement. Thus, theoretical tools in social movement studies should provide significant analytical purchase for our study. Indeed, the global movement for advancement of human rights has fueled many domestic social movements and spawned various social movements at the international level. HRINGOs have initiated and carried forward many of these activities. Thus, examination of the local-global dynamics within HRINGOs is critical to understanding the global human rights movement. Drawing on the social movement literature, we investigate how configuration of political opportunities, resources for mobilization, and cognitive frames at both domestic and international levels shape the patterns of citizen participation in HRINGOs.

We also engage the studies on globalization, particularly those from the world society approach (Meyer et al. 1997). We seek to examine if and how linkages to

world society might influence individuals' participation in HRINGOs. In doing so, we employ new measures of international linkages, which enable us to link the social movement literature and the world society approach effectively. Furthermore, we attempt to sort out the different roles of inter-governmental and nongovernmental organizations in global political processes. Global human rights ideas pose a threat to governmental actors because they tend to constrain state behavior in domestic political affairs. Nongovernmental actors, on the other hand, are less concerned about state sovereignty. Therefore, we expect linkages to global civil society to have a stronger impact on citizen participation in the international human rights movement than intergovernmental linkages.

We also expect that global factors have become more important predictors of citizen participation in HRINGOs over time relative to that of domestic factors. In early stages of the global human rights movement, individuals in developed countries led the process, but as human rights become institutionalized in global politics, participation by citizens of developing countries has grown. By employing social movement theories and the world society approach in one analysis, our study explicates the actual processes of "norm cascade," in which a norm emerges in global society, achieves a taken-for-granted status, and influences activities of individuals and organizations across the globe (Risse, Ropp & Sikkink 1999; Sunstein 1997). Our core argument is that endogenous factors had some explanatory power early on, but that external factors have become increasingly important over time (e.g., Tolbert & Zucker 1983), corresponding with the growth of international human rights norms. As global civil society increasingly promotes human rights ideas, countries with citizen engagement in global civil society become more likely to have citizens who are members in many HRINGOs. Thus, we see global civil society as a breeding ground for progressive ideas, such as human rights norms. Our research clarifies the processes through which an international movement develops into a force in international politics and points to the importance of global civil society as an important arena for political changes in the contemporary world. Theoretically, it contributes both to world society theory, by explicating the processes of norm diffusion, and to social movement theories, by illustrating how international social movements evolve and what countries lead these movements.

After briefly describing the history of global human rights and HRINGOs' roles in it, we present descriptive statistics on the growth of the number of HRINGOs over the last two centuries and citizen memberships in the organizations over the past thirty years. We then highlight the two theoretical perspectives described above and present our main hypotheses. Finally, we examine patterns of citizen participation in HRINGOs using a multivariate regression analysis for three time points — 1978, 1988, and 1998 — as well as changes over two ten-year time periods. We seek to contribute to the literature with longitudinal data on HRINGOs collected for this research.

Expansion of Human Rights International Nongovernmental Organizations in the Post-World War II World

HISTORICAL FACTORS

Research on the history of human rights reports contributions by different actors in the global expansion of human rights (Buergethal 1995; Claude & Weston 1992; Donnelly 1998; Lauren 1998). After World War II, spurred on by many nongovernmental activists (Korey 1998), political leaders of the Allies sought to establish human rights as a foundation of the new world order (Lauren 1998).³ Their visions are reflected in the U.N. Charter (1945) and in the U.N. Declaration of Human Rights (1948), the two documents that laid the foundation for human rights instruments that followed. Soon thereafter, however, a power struggle between the two superpowers, oppression in the colonies, and racism within the powerful nations began to impede efforts to promote human rights further in the international political arena.

When the enthusiasm of powerful governments dwindled, nongovernmental activists and Third World countries became the central actors in international human rights activities. Their efforts resulted in the adoptions of several key U.N. human rights treaties since the 1960s and their ratifications by an increasing number of states (Wotipka & Tsutsui 2001). Third World countries were motivated by their anticolonialist fervor and by their aspiration to establish racial equality in the postcolonial world order. The conviction of these countries is reflected in the fact that the International Convention on the Elimination of All Forms of Racial Discrimination (1965) was the first major U.N. human rights treaty to be adopted. When their domestic human rights practices became targets of international criticism in the 1970s, however, their enthusiasm gradually waned. Thus, governments from both the developed and developing world turned from proponents of the global human rights regime to its doubters and even critics.

As Third World countries diminished their human rights activities in the 1970s, nongovernmental human rights activists became increasingly instrumental in moving the global human rights movement forward. Numerous HRINGOs were established in this period and worked fearlessly to criticize rights-violating governments. In contrast to HRINGOs, national governments tend to be averse to criticizing other governments' domestic practices for fear that this would undermine state sovereignty in general and justify criticism from other governments regarding their own domestic violations. In addition, other political factors are taken into consideration such as trade relations with rights-violating countries and possible retaliation in other arenas that may result from criticism regarding human rights issues. In some cases, governmental actors may not be concerned with human rights and may even work to actively undermine international progress in human rights as was witnessed by some military governments in Latin America (Lutz &

Sikkink 2000). HRINGOs, on the other hand, do not share these concerns. Motivated by their principles and powered by their flexible and committed constituencies, these organizations document and publicize human rights violations in virtually all corners of the world. The work of Amnesty International and Human Rights Watch, among other HRINGOs, is widely recognized by now; their publications have become authoritative sources of information on human rights practices. These organizations continue to constitute a powerful lobby in contemporary global politics.

DESCRIPTIVE CHANGES

While much research has recognized the importance of HRINGOs in global human rights politics, few studies have systematically examined them in a cross-national analysis.⁴ Using the data we collected on HRINGOs from the 1970s to the 1990s, we first outline the universe of HRINGOs along a few key dimensions, and then analyze patterns of memberships in HRINGOs. Our focus is on the two most important dimensions in understanding global expansion of HRINGOs — founding year and countries from which members come.⁵

These variables provide us with insights on how the world of HRINGOs has evolved over time as well as the characteristics of the types of countries whose citizens led the evolution. To begin, we provide a brief description of the coding scheme used to collect the data on HRINGOs.

The data used in our analysis are culled from the *Yearbook of International Organizations*, published by the Union of International Associations.⁶ We define human rights international nongovernmental organizations as those international nongovernmental organizations that are concerned with the promotion and protection of human rights in the long term. *Human rights* here refer to civil, political, economic, social and cultural rights of living human beings. *Nongovernmental* status requires that the organizations are composed largely of independent citizens and are free of direct government influence. To be considered *international*, an organization must have members from two or more countries. By specifying the *long-term* focus of organizations, we exclude organizations that offer tentative solutions to social problems but do not aim for any long-term social changes.⁷ The coding was done taking advantage of the categorizations employed in the Yearbook for three time points — 1978, 1988, and 1998. As more categories and specifications emerge over time, identifying organizations that qualify as HRINGOs becomes increasingly easier. For 1998, most of the relevant organizations are coded from the category labeled human rights organizations. In earlier periods, this category did not exist. Thus, for 1988, we had to expand the scope and code organizations in several different categories including rights, justice, equality, discrimination, and humanity. For 1978, we first coded organizations under two English subject headings —

human and rights. Then, we coded organizations under classified subject headings — social welfare, women, trade union, and religion, ethics, morals.⁸ In the following analyses, we used only organizations that work explicitly to promote and protect internationally recognized human rights in the long term.⁹ The data include 96 HRINGOs in 1978, 170 in 1988, and 499 in 1998, indicating a dramatic increase in HRINGO activities over the thirty years.

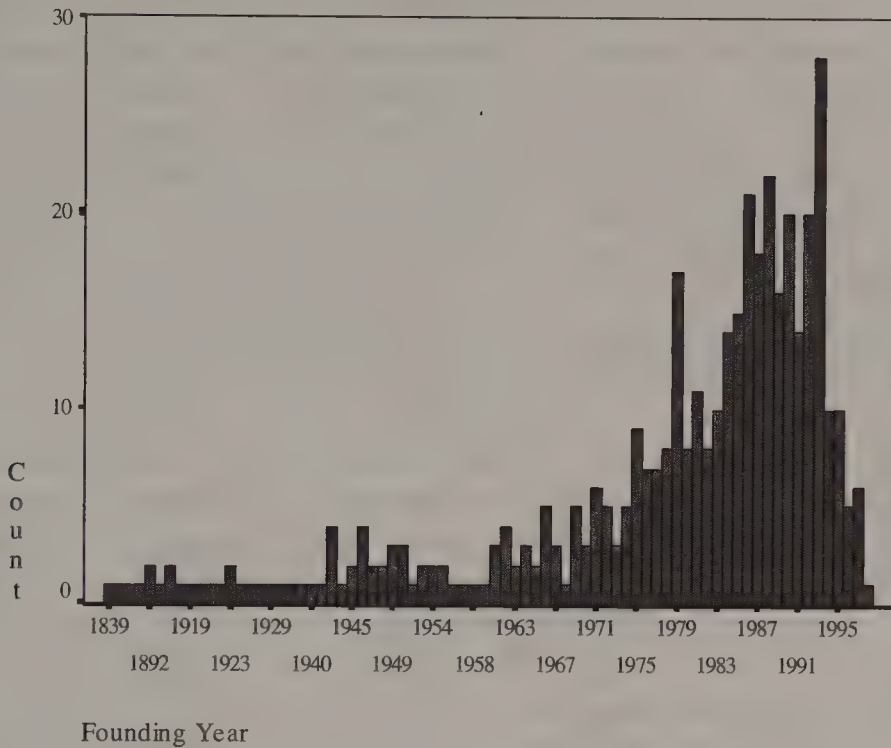
Figures 1 and 2 show graphically the dramatic growth of HRINGOs over time using information on HRINGOs from the 1998 data file. Figure 1 summarizes the founding years of HRINGOs, which range from 1839 to 1998. According to this data set, among 412 HRINGOs for which the founding year is known and that were still in existence in 1998, 30 of them emerged prior to 1945. In the following 30 years (up to 1975), 77 organizations emerged. In the next 24 years (1975–98), 305 organizations were founded. The growth is particularly dramatic from the mid-1980s to the early 1990s, as the number of foundings consistently registered over 14.¹⁰ Figure 2 captures the cumulative count of HRINGOs and shows even more dramatically the growth of HRINGOs in this period.

The number of countries with citizen membership in HRINGOs ranges from 2 to 170, and averages about 32 countries per organization with a standard deviation of 33 for the data in 1998.¹¹

Table 1 summarizes the descriptive statistics on HRINGOs at three time points including a list of the top ten and bottom ten countries in terms of the number of memberships in HRINGOs.¹² These data on citizen membership confirm the global expansion of HRINGOs, as the mean number of countries that have citizens involved in HRINGOs increased from about 12 in 1978 to almost 46 in 1998. The list of top and bottom ten countries exhibits an interesting pattern. Developed Western countries consistently occupy the top ten spots, while peripheral developing countries are at the bottom.¹³ One might speculate that it is a general pattern that developed countries have more citizens engaged in HRINGOs. Citizens in the countries on the low end of memberships may be unable to mobilize due to their lack of opportunities and resources. More important, however, is the fact that growth in citizen participation in HRINGOs is not limited to developed countries alone. Although countries with little citizen engagement tend to be peripheral countries, their citizens' participation is increasing nonetheless. We explore these issues in the next section.

International Linkages and Global Dimensions of Social Movements

Two lines of research guide our analysis of the patterns of participation in HRINGOs; we explore the literature on social movements and globalization to investigate global and national level factors that circumscribe participation in HRINGOs. We seek to contribute to (1) the social movement literature by exploring the interplay between domestic and global political opportunity

FIGURE 1: Founding Years of Human Rights International Nongovernmental Organizations

structures, resource configuration, and framing of the movement; and (2) the literature on globalization by investigating the impact of linkages to world society, by sorting out the different roles of international governmental and nongovernmental actors in global politics and by examining the process of norm diffusion over time.

Since the international human rights movement is a type of social movement, theories on social movements ought to be useful in studying patterns of local actors' participation in this movement. Three approaches have figured prominently in the recent growth of the literature on social movements: political opportunity structures, resource mobilization, and cognitive framing (McAdam, McCarthy & Zald 1996). Using these approaches, social movement research has produced many insights into how social movements emerge and develop. However, as McCarthy (1997) and McAdam (1998) point out, its traditional emphasis on domestic politics has been a serious limitation in the field, preventing examination of important factors that lie outside national borders.

In response to this concern, some important contributions on international dimensions of social movements have emerged over the last few years. They have examined international political opportunity structures (Imig & Tarrow 1999; Marks & McAdam 1996; McAdam 1998), transnational flows of human and material resources for movements (Keck & Sikkink 1998a; Smith, Chatfield & Pagnucco 1997), and new patterns of framing that reflect sensitivity to global

TABLE 1: Descriptive Statistics of Country Memberships in International Nongovernmental Human Rights Organizations, 1978, 1988, and 1998

Descriptives					
	1978	1988	1998		
Minimum	0	0	1		
Maximum	45	80	158		
Mean	12.1	22.0	45.9		
Standard Deviation	11.0	18.7	34.2		
N	166	169	167		
Top 10 Countries					
1978		1988		1998	
Country	Number	Country	Number	Country	Number
UK	45	France	80	France	158
West Germany	43	U.K.	77	U.K.	153
France	42	West Germany	74	U.S.A.	146
Sweden	41	Netherlands	73	Germany	142
Netherlands	40	USA	73	Belgium	138
Italy	40	Belgium	71	Italy	132
U.S.A.	40	Switzerland	70	Netherlands	131
Denmark	36	Italy	67	Switzerland	127
Belgium	36	Canada	64	Canada	119
Switzerland	35	Sweden	61	Spain	117
Austria	35				
Canada	35				
Bottom 10 Countries					
1978		1988		1998	
Country	Number	Country	Number	Country	Number
Cape-Verde	0	Nauru	0	Nauru	1
Brunei	0	Albania	0	Qatar	3
Eq-Guinea	0	Cambodia	1	Laos	4
Maldives	0	St. Kitts	2	Brunei	5
Qatar	0	Afghanistan	2	Maldives	5
Andorra	0	Bhutan	2	Liechtenstein	6
Vatican	0	North Korea	2	Sao Tome	7
Nauru	0	Mongolia	2	Oman	7
Solomon Is	0	Brunei	3	North Korea	8
Tonga	0	Maldives	3	Monaco	8
Vanuatu	0	Qatar	3		
		Andorra	3		
		Sao Tome	3		
		Laos	3		

Notes: Source: UIA

audiences (Klandermans et al. 1999). Correspondingly, a few incipient attempts to theorize global dynamics of contentious politics have appeared (Keck & Sikkink 1998b; McCarthy 1997; Tarrow 1998). Drawing on this emerging literature, we develop our hypotheses along the three key dimensions of social movement studies.

First, studies have documented that political opportunities available in a polity shape the form and timing of social movements. Such opportunities include openness of the institutionalized political system, potential for activists to influence elites, and perceived probability of forceful repression by the government (McAdam 1996). This line of reasoning predicts that domestic political opportunities are prerequisites for participation in global social movements. Correspondingly, on the evolution of the global human rights movement, much literature alludes to the leading role of individuals in countries with more opportunities for political activism (Gaer 1995; Wiseberg 1992).

Another line of human rights research documents a world-level process in which oppressed citizens use international channels to publicize human rights violations and pressure their governments and multinational corporations (Keck & Sikkink 1998a; Risse, Ropp & Sikkink 1999). This “boomerang effect” has become an effective way for oppressed populations to rectify wrongs done to them. As this process has become fairly common, it might be the case that these groups are in greater need of developing a connection with global actors and are joining HRINGOs, whereas citizens who enjoy political freedom are able to establish domestic organizations to voice their complaints. This perspective privileges international political opportunities over domestic ones, while the other hypothesis proposes a spill-over effect of local political opportunities. In our analysis, we consider both possibilities.

Hypothesis 1a: Citizens in countries with greater domestic political opportunities participate in more HRINGOs, all else being equal.

Hypothesis 1b: Citizens in countries with fewer domestic political opportunities participate in more HRINGOs, all else being equal.

At the international level, political opportunities open up for local populations when their governments join intergovernmental human rights organizations via international human rights treaties. By ratifying these treaties, governments express their willingness to be judged by a series of benchmarks and to be held accountable for failing to live up to their promises. Commitment to these organizations renders the governments more vulnerable to criticism from abroad about their domestic human rights practices, thus providing local populations with international level opportunities to pressure their governments. Some organizations also have authority to examine individual complaints; local populations can file complaints to the organizations and ask for investigations into possible human rights violations.¹⁴ We hypothesize that citizens in these countries are more likely to perceive political opportunities at the global level, which they can use to influ-

ence local or global human rights politics, and therefore are more likely to join HRINGOs.

Hypothesis 1c: Citizens in countries with greater global political opportunities (more memberships in intergovernmental human rights organizations) participate in more HRINGO memberships, all else being equal.

By testing these hypotheses, we delineate the interplay between local and global political opportunity structures. We also make inferences about the interaction between global and local civil societies and about the directionality (unidirectional or bi-directional) of the influences; we explore whether global civil society encourages local populations to join the international human rights movement, or local civil societies mobilize to create and sustain such movements.

Second, research on resource mobilization has found that flows of resources for mobilization and the strength of preexisting organizational structures and social networks circumscribe the potential for social movements. On the domestic level, resources that are available for citizens often shape the possibility of social movements for human rights. Populations with more resources are more likely to engage in postmaterialist movements, which prioritize noneconomic factors such as a sense of belonging and aesthetic concerns as their goals (Inglehart 1977, 1990). In other words, once basic human needs have been met, citizens can turn their attention to other needs. The human rights movement is often considered an example of such postmaterialist movements.

On the international level, inflows of resources across borders, both material and human, facilitate a country's connection to the international human rights movement. Citizens in such countries not only have the advantage of having more mobilizational resources for social movements, but also have human networks through which they link with global civil society and join the human rights movement. These arguments lead to the following hypotheses:

Hypothesis 2a: Citizens in more developed countries participate in more HRINGOs, all else being equal.

Hypothesis 2b: Citizens in countries with greater international inflows of human and material resources participate in more HRINGOs, all else being equal.

Third, the literature on framing points to the importance of the cognitive dimensions in mobilizing individuals for social movements. Movement leaders need to choose effective ways of framing that would facilitate understanding of the issues at stake and convince individuals to participate in the movement (Brysk 2000; Clark 2001). Domestically, the level of education of a country's population influences the level of cognitive understanding of human rights issues. Citizens who are better educated may possess the cultural capital needed to be aware of their rights, to recognize when those rights have not been met, and to

possess the tools needed to articulate demands and to organize for change (Tarrow 1987). This argument leads to the following hypothesis:

Hypothesis 3: Citizens in countries with higher levels of education participate in more HRINGOs, all else being equal.

On the international level, we argue that linkages to global civil society facilitate a cognitive understanding of human rights issues. Here, we make use of world society theory to advance the argument. The world society theoretical perspective explains globalization processes by arguing that world models for state and society, organization, and relations have expanded over time, especially since the end of World War II (Meyer et al. 1997). Such models are available to all countries regardless of their economic, social, or political characteristics. By meeting world standards of nation-statehood, countries are able to gain legitimacy in the eyes of other nations. The result has been increasing isomorphism among national governments over time in their structures, behavior and policies.

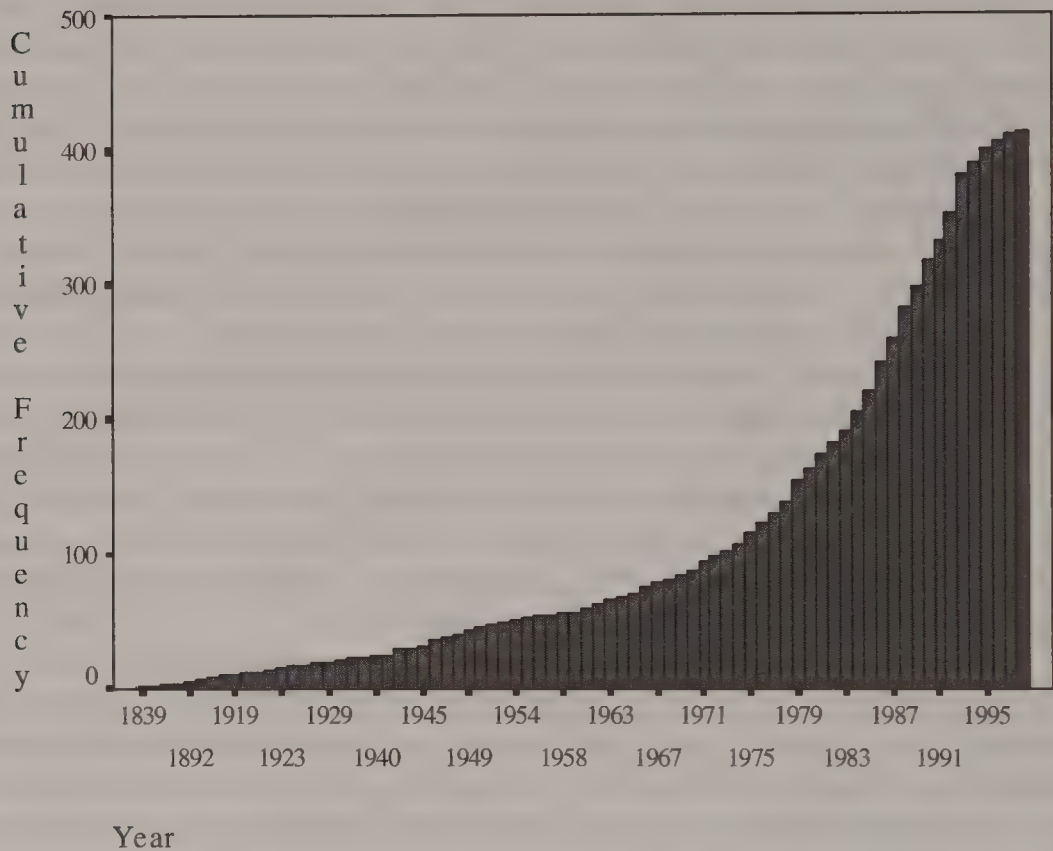
We argue that the globalization of the human rights regime reflects the triumph of world models of progress and justice within which the individual person is assigned a central role. As reflected in the models, nation-states are expected to pursue progress and justice and to do so by enhancing the capacities of individuals and protecting their rights (Ramirez 2001; Ramirez & Meyer 1998). One example of this is the changing nature of the discourse surrounding the rights of women over the past two centuries (Berkovitch 1999).

The international human rights regime has impacted the formal policies and structures of many nation-states (Jacobson 1996; McNeely 1995). In order to be part of the international human rights regime, countries are expected to fit a certain human rights profile, which includes participating in human rights organizations and conferences, signing international and regional human rights treaties and conventions, and developing domestic human rights law and policy (Ramirez et al. 2002).

The expansion and intensification of networks linking countries, organizations, and people to one another facilitate the development and dissemination of these world models. This is especially the case with human rights. International organizations (IOs), including both governmental and nongovernmental ones, serve as a key networking mechanism for the diffusion of world models. Through involvement with IOs, citizens get exposed to models concerning progress and justice, and eventually regard attention to human rights to be the norm. As a result, they would be more likely to engage in activities specific to human rights, such as participation in HRINGOs. Thus, the more connections a country has with international society, the more likely its citizens are to participate in many HRINGOs. This leads to the following hypothesis:

Hypothesis 4a: Citizens in countries having greater connections to international society participate in more HRINGOs, all else being equal.

FIGURE 2: Cumulative Count of Human Rights International Nongovernmental Organizations



However, the influence of these international connections may differ depending on the type of connections. Recent scholarship on globalization has suggested that international governmental and nongovernmental arenas may be two separate spheres operating by different principles and logic (Boli & Thomas 1997; Jang & Luo 2000). This distinction is particularly striking in a field such as human rights (Tsutsui 2004). As discussed above, governmental agents and nongovernmental organizations have been taking turns leading the efforts to establish human rights as a major global political agenda. Since the 1970s, however, it has been nongovernmental actors that are more aggressive in promoting human rights ideas and publicizing human rights violations. Governmental agencies tend to be more averse to commit to human rights causes because they are concerned about undermining state sovereignty, which global human rights almost inevitably do. Nongovernmental actors, on the other hand, are less concerned about state

sovereignty and therefore are more active and flexible in human rights activities. Given the appreciatively more active role global civil society has played in the promotion of human rights, linkage to it should have a greater impact on citizen engagement in HRINGOs. Thus the second part of this hypothesis reads as follows:

Hypothesis 4b: Linkage to global civil society has a stronger effect than linkage to the intergovernmental world on citizen participation in HRINGOs, all else being equal.

Finally, we expect the effects of global civil society to be stronger in more recent periods. While in earlier periods domestic factors might have determined whether a country's citizens were represented in HRINGOs, international factors ought to have become more important in recent years as globalization connects more local actors and as human rights becomes more institutionalized in global society.¹⁵ As the literature on norm cascade specifies, once a norm attains a taken-for-granted status, its influence on local political actors grows dramatically, leading to isomorphic political structure and practice across the globe. Since human rights ideas are considered to have reached the taken-for-granted status in the mid-1980s (Risse, Ropp & Sikkink 1999), the impact of linkages to global civil society ought to have increased since then.

Data and Measures

The descriptive analysis above suggests that developed Western countries tend to have more citizens engaged in human rights international nongovernmental organizations. Over time, however, individuals in developing countries have increased their participation in HRINGOs. In this section, we build on the descriptive analysis to provide explanations for those national characteristics that lead to a greater number of memberships in HRINGOs. In order to test the hypotheses we have laid out earlier, we employ ordinary least-squares regression analyses to explain HRINGO memberships in 1978, 1988 and 1998. To understand changes over time, we also use panel analyses for 1978–88 and 1988–98.¹⁶ All of the analyses use a constant set of 77 countries, which are listed in the Appendix.

Our dependent variable is the number of HRINGOs in which each country's citizens participate as described in a previous section. It is measured in 1978, 1988, and 1998, as are the independent variables, unless otherwise stated. To correct for the skewed distribution of HRINGOs, we tested several transformations of the variable. The square root transformation approximated the normal distribution the best, and results using this measure yielded stronger model fits than those with other transformation, such as natural log.

We use the following independent variables to test the hypotheses presented earlier. To measure the availability of domestic political opportunities, we use indicators of the level of civil and political rights granted to local populations. We

combine the measures of civil liberties and political rights from Freedom House (2001) to create a composite index of domestic political opportunities. The indices each measure degrees of political rights and civil liberties on 1–7 range scales. We flipped the original index so that high scores coincide with high degrees of liberties and rights (e.g., Costa Rica and Norway) whereas low scores are given to countries with fewer civil liberties and political rights (e.g., Myanmar and Somalia). Thus, our measure of civil and political rights ranges from 2 to 14, with a score of 14 representing a country with the greatest protection of civil and political rights.¹⁷

As for political opportunity structures at the international level, we use memberships in human rights intergovernmental organizations (HRIGOs) as the measure. The variable quantifies national memberships in international governmental organizations that are human rights-related in each of the three time points. Similar to the dependent variable, this measure comes from the Union of International Associations (Various years).

To measure the size of national resources, we use gross domestic product (GDP) per capita, purchasing power parity (PPP) in current international dollars (World Bank 2001). We took the natural log transformation to correct for the skewed distribution. To measure *international* flows of resources, we use two variables. The first is the number of people entering the country in the short term, which is a proxy for inflows of human resources. This measure captures the openness of national borders to people from abroad, which facilitates activists to come in and work on human rights issues in the country. The second variable is import of goods and services as a percentage of the GDP, which measures inflows of material resources. It represents the openness of a country to material resources coming from abroad.¹⁸ Both of these variables come from World Development Indicators (2001) and are logged.¹⁹

Our arguments concerning cognitive dimensions lead to two types of measures, one for domestic and the other for global level measures. The first is education. We use tertiary enrollment ratios for the age cohort likely to be enrolled in that level of education (20–24 year-olds).²⁰ The variable is available from the World Bank (2001) and is transformed (natural log) to correct for skewed distributions.²¹ The second set of variables measure the level of a country's involvement in international society. We follow the convention in world society research, and use memberships in international nongovernmental organizations (INGOs) and memberships in international governmental organizations (IGOs). We corrected for the skewed distribution by first adding one to all cases and then performing a natural log transformation for both variables. In order to ensure independence from HRIGOs and HRINGOs variables, we subtracted the numbers of HRIGO and HRINGO memberships from each country's memberships in overall IGOs and INGOs, respectively. Both IGO and INGO measures come from the Union of International Associations (Various years). Table 2 summarizes the definitions and descriptive statistics of these variables.

We ran three cross sections using variables measured in 1978, 1988, and 1998, respectively. In the two panel analyses (1978–88 and 1988–98), we included the lagged dependent variable as well as explanatory variables, which are lagged ten years.

Results

CROSS-SECTIONAL ANALYSES

In this section, we present the results for three cross-sectional analyses using the number of memberships in HRINGOs in 1978, 1988 and 1998. Results are summarized in Tables 3, 4, and 5. For all three time points, model 1 tests the effects of domestic factors on the number of memberships in HRINGOs, while in models 2 and 3 we add measures of international factors. We begin by reporting the results for 1978.

Model 1 reports the effects of domestic political opportunities and cognitive understanding, measured by the civil and political rights index and education, respectively. We initially attempted an analysis with the measure of resource availability at the domestic level, gross domestic product per capita (logged). However, since the variable was very highly correlated with education (over .85), and did not have a significant effect, we are not presenting the results with the GDP variable. In model 1, the effects of education are positive and significant. The effects of civil and political rights are also significant, although at a lower level.

In model 2, we added the following international factors: HRIGO memberships, which measures international political opportunities, international inflows of human and material resources, and memberships in IGOs. The openness of a country to people outside has a positive significant effect, while the openness of a country to foreign goods and services has a negative and significant effect. These results suggest that international flows of human resources have a positive impact on citizen participation in the international human rights movement, while flows of material resources have the opposite impact. The former finding is consistent with our hypothesis, but the latter is opposite to our hypothesis and calls for more discussion. Memberships in IGOs has a positive significant effect. The effect loses significance in model 3, however, with inclusion of linkage to global civil society measured as memberships in INGOs.²² Thus, our hypothesis that international linkages, particularly those to global civil society, have positive effects on HRINGO memberships finds support. With the addition of these linkage variables, other variables gradually lose significance. In model 3, all the other variables lose significance as we introduce memberships in INGOs.²³ The overall model fit increases quite a bit as well. These findings indicate a strong impact of linkage to global civil society on citizen participation in the international human rights movement.

Table 4 shows the results of the same analyses for the next time point, 1988. The results for 1988 are different from those for 1978 in some interesting ways. The positive effect of domestic political opportunity structures measured as civil and political rights becomes stronger in this period; it is significant in all three models. The effect of HRIGOs becomes significant in model 2. These results suggest stronger effects of both domestic and international political opportunity structures in this period. In model 2, international flows of human resources continue to have a positive impact whilst flows of material resources have a negative one. IGOs continue to exert a positive and significant effect in this model. In the final model, INGO linkage has the strongest effect and eliminates the effects of HRIGOs, flows of material resources, and IGOs, but the rights variable continues to be positive and significant in 1988.

Finally, Table 5 summarizes the results for 1998. The results are very similar to those for 1988 except that the level of significance changes for some variables. This suggests that the patterns of participation in HRINGOs have remained largely the same in this period. Citizens in countries with greater domestic opportunities, more inflows of human resources, and stronger linkage to global civil society are more likely to participate in the international human rights movement. In all three years, the adjusted R-squares are the highest in model 3, which includes INGO memberships. However, the overall amount of variation that is accounted for by the model goes down slightly over time (.869, .838, and .786 in 1978, 1988, and 1998, respectively). This suggests that, over time, participation in HRINGOs becomes increasingly institutionalized and therefore more difficult to capture.

Panel Analyses

To examine what factors predict changes in citizen participation in HRINGOs, we carried out panel analyses with a ten-year lag for two time points, 1978–88 and 1988–98. The explanatory variables used in the analyses are the same as those used in the cross-sections except that we add the lagged dependent variable. The risk involved in such an analysis is that the lagged variable accounts for all of the variation in the later time period. Indeed, this is what we find in the models we ran using the same dependent variable as was used in the cross-sections, that is, total memberships in HRINGOs.²⁴ For the panels presented here, we make use of a slightly different dependent variable. It measures the change in HRINGO memberships between the later time period (e.g., 1988) and the earlier one (e.g., 1978).²⁵ We do this for both 1978–88 and 1988–98. Results for the first panel are reported in Table 6.

The findings suggest that the strongest predictor of change in citizen memberships in HRINGOs between 1978–88 is the degree of civil and political rights ten years prior. In all three models, holding other variables constant, this variable consistently registers a strong positive significant effect ($p < .001$),

suggesting that domestic political opportunities increase the level of participation in the international human rights movement. The lagged dependent variable has a weakly significant ($p < .05$) and positive effect in only the first model. In all models, the effects of education, HRIGO memberships, and international flows of human and material resources are insignificant. Memberships in IGOs, as seen in model 2, have a strongly significant and positive effect on HRINGO memberships, but the effect is wiped out in model 3 when we add INGO memberships, which has a weakly significant effect. This last model explains the greatest amount of variation (adjusted $R^2 = .584$). Thus, domestic political opportunities and linkage to global civil society predict the growth in HRINGO memberships from 1978 to 1988, with the former having a much stronger effect.

The picture changes in the analysis of the 1988–98 period. The results in Table 7 show that the lagged dependent variable, international human inflows, and linkage to global civil society have positive significant effects on the dependent variable. The level of domestic political opportunities, which had a strong positive significant effect in all models in the earlier period, is negative and significant in the first model and insignificant in the rest.²⁶ No other variables show significant effects in any models. These findings suggest that citizens in countries that had joined the international human rights movement by 1988 continue to grow in their memberships to HRINGOs in the following ten years, and that individuals in countries with greater inflows of human resources and stronger linkage to global civil society also expand their participation in the movement. In other words, global factors predict increase in citizen participation in the international human rights movement better than domestic factors controlling for the lagged dependent variable. In addition, a greater amount of the variance is accounted for in this analysis than in the analysis of the 1978–88 period.

Further Specifications

We tried several additional variables in analyses not reported in the models presented above.²⁷

Our account of the historical process leading to the expansion of HRINGOs around the world indicated that both developed and developing countries played the lead role in establishing human rights issues as a legitimate global political concern. On one hand, most countries that can boast of large numbers of citizens who are members of HRINGOs and HRINGO headquarters are located in Western Europe and in the U.S. and Canada. However, as we have reiterated throughout this article, human rights is not to be viewed as a venture limited to core countries.²⁸ To explore potential regional diversity, we used regional dummy variables, which produced somewhat inconsistent results. In some models of the cross-sections and the panel analyses, the dummy variable for Middle East/North

TABLE 2: Definitions and Descriptive Statistics for Variables Used in the Analysis

	Definition	Mean	Std. Dev.
HRINGO memberships	Measured by memberships in human rights international nongovernmental organizations at national level, 1978 (square root).	3.80	1.43
	Measured by memberships in human rights international nongovernmental organizations at national level, 1988 (square root).	5.34	1.65
	Measured by memberships in human rights international nongovernmental organizations at national level, 1998 (square root).	2.06	7.58
Change in HRINGOs	Measured by subtracting human rights international nongovernmental organizations in 1978 from human rights international nongovernmental organizations in 1988 (square root).	3.65	1.21
	Measured by subtracting human rights international nongovernmental organizations in 1988 from human rights international nongovernmental organizations in 1998 (square root).	5.21	1.52
National resources	Measured by gross domestic product per capita, 1978 (log).	7.49	1.08
	Measured by gross domestic product per capita, 1988 (log).	8.20	1.12
	Measured by gross domestic product per capita, 1998 (log).	8.45	1.20
Education	Measured by tertiary enrollment/age cohort, 1975 (log).	1.48	1.47
	Measured by tertiary enrollment/age cohort, 1988 (log).	2.12	1.27
	Measured by tertiary enrollment/age cohort, 1995 (log).	2.38	1.33
Rights' index	Measured on a 14-point scale (14 = most rights; 2 = least rights), 1978.	4.30	1.84
	Measured on a 14-point scale (14 = most rights; 2 = least rights), 1988.	4.36	2.01
	Measured on a 14-point scale (14 = most rights; 2 = least rights), 1998.	4.83	1.60

Africa was weakly negative and significant.²⁹ The other regions failed to exert significant results.

In testing the effects of domestic political opportunity structures (or a lack thereof), we tried an additional measure, the degree of state terror in a country.

TABLE 2: Definitions and Descriptive Statistics for Variables Used in the Analysis (Continued)

	Definition	Mean	Std. Dev.
HRIGO memberships	Measured by nation-state memberships in human rights intergovernmental organizations, 1978.	4.14	1.33
	Measured by nation-state memberships in human rights intergovernmental organizations, 1988.	7.06	2.55
	Measured by nation-state memberships in human rights intergovernmental organizations, 1998.	10.30	2.50
Human inflows	Measured by short-term visits, 1980 (log).	5.65	.86
	Measured by short-term visits, 1988 (log).	5.82	.85
	Measured by short-term visits, 1998 (log).	6.02	.90
Imports of goods and services	Measured by imports of goods & services as a percentage of gross domestic product, 1978 (log).	3.37	.62
	Measured by imports of goods & services as a percentage of gross domestic product, 1988 (log).	3.36	.54
	Measured by imports of goods & services as a percentage of gross domestic product, 1998 (log).	3.55	.50
IGO memberships	Measured by nation-state memberships in intergovernmental organizations, 1978 (add one, log).	3.76	.35
	Measured by nation-state memberships in intergovernmental organizations, 1988 (add one, log).	3.80	.30
	Measured by nation-state memberships in intergovernmental organizations, 1998 (add one, log).	3.75	.28
INGO memberships	Measured by memberships in international non-governmental organizations at national level, 1978 (add one, log).	5.57	.98
	Measured by memberships in international non-governmental organizations at national level, 1988 (add one, log).	6.29	.81
	Measured by memberships in international non-governmental organizations at national level, 1998 (add one, log).	6.60	.83

We used indices of the degree of human rights abuses in countries culled from Amnesty International and the U.S. State Department's annual reports. Scores ranged from 1-5 with low scores indicating low levels of human rights abuses (Ball 2000; Poe & Tate 1994). The results for these measures failed to produce any significant results.

We also consider other factors that may be influencing the rise of international nongovernmental organizations. It has been argued that starting in the mid 1970s, official development assistance (ODA) from the U.S. was frequently provided to lesser-developed countries via international nongovernmental organizations. Given

TABLE 3: Cross-sectional Analysis of Memberships in Human Rights International Nongovernmental Organizations (HRINGOs), 1978

	Model 1	Model 2	Model 3
Education	.68*** (.09)	.33** (.09)	.07 (.08)
Rights index	.05† (.03)	.04 (.03)	.01 (.02)
HRIGO memberships		.07 (.07)	.08 (.06)
Human inflows		.25† (.13)	
Imports of goods and services		-.31* (.13)	-.13 (.12)
IGO memberships		1.5*** (.31)	-.19 (.36)
INGO memberships			1.22*** (.18)
Constant	2.32*** (.24)	-3.33* (1.36)	-2.36* (.98)
Adjusted R ²	.640	.794	.869
(N = 77)			

Note: Unstandardized coefficients are reported; Standard errors in parentheses. Variables measured in c. 1978.

† $p < .10$ * $p < .05$ ** $p < .01$ *** $p < .001$ (two-tailed tests)

that much ODA addresses basic human needs, it is possible that the rise of HRINGO memberships in these countries is driven by ODA and the organizations stemming from them. To test this possibility, we used a measure of official development assistance and official aid (in current \$US) in the analyses for lesser-developed countries (i.e., those receiving aid for those years). The results for the cross-sections were not stable over time. The variable was positive and significant for 1988 and 1998 but did not exert a significant effect for any year when the INGO variable was added to the models. In each of the panel analyses, the variable failed to reach significance.

Lastly, we also considered the issue of multicollinearity. Correlations among variables were not extremely high. Among all independent variables, tertiary education enrollment and the development measure (GDP) were the most highly correlated, and therefore, we excluded the development measure in our tables. Furthermore, the stability of coefficients and standard errors across most models

TABLE 4: Cross-sectional Analysis of Memberships in Human Rights International Nongovernmental Organizations (HRINGOs), 1988

	Model 1	Model 2	Model 3
Education	.51*** (.14)	.12 (.14)	-.08 (.11)
Rights index	.18*** (.04)	.16*** (.04)	.09* (.04)
HRIGO memberships		.11* (.05)	.03 (.05)
Human inflows		.42* (.17)	
Imports of goods & services		-.36† (.19)	-.09 (.16)
IGO memberships		1.19** (.38)	-.15 (.38)
INGO memberships			1.58*** (.24)
Constant	2.61*** (.28)	-2.91 (1.81)	-4.61** (1.45)
Adjusted R ²	.615	.754	.838
(N = 77)			

Note: Unstandardized coefficients are reported; Standard errors in parentheses. Variables measured in c. 1988.

† $p < .10$ * $p < .05$ ** $p < .01$ *** $p < .001$ (two-tailed tests)

provides some confidence that multicollinearity was not a problem. Although the results tended to change with the inclusion of the INGO variable, this owes more to the strength of its effect than multicollinearity.

Discussion

The foregoing analyses reveal a striking finding: international factors explain country level variation in citizen participation in the international human rights movement better than domestic factors with the exception of domestic political opportunities. Considering the effects found in the panel analyses, we see that endogenous variables, namely rights, had a strong positive impact in the earlier period. In the later era, exogenous variables, particularly memberships in INGOs and international human inflows, have a strong and positive impact on citizen memberships in HRINGOs. When human rights are less institutionalized, internal

TABLE 5: Cross-sectional Analysis of Memberships in Human Rights International Nongovernmental Organizations (HRINGOs), 1998

	Model 1	Model 2	Model 3
Education	.81*** (.16)	.02 (.17)	-.25 (.15)
Rights index	.12* (.06)	.19*** (.05)	.09* (.04)
HRIGO memberships		.08 (.07)	.003 (.06)
Human inflows		.85** (.24)	
Imports of goods and services		-.71* (.28)	-.28 (.25)
IGO memberships		2.13** (.59)	.14 (.61)
INGO memberships			2.22*** (.34)
Constant	4.44*** (.53)	-5.73 (2.70)	-7.00** (2.28)
Adjusted R ²	.431	.705	.786
(N = 77)			

Note: Unstandardized coefficients are reported; Standard errors in parentheses. Variables measured in c. 1998.

† p < .10 * p < .05 ** p < .01 *** p < .001 (two-tailed tests)

conditions (local political opportunities) are more consequential, and when human rights are more institutionalized worldwide, linkages to the world matter more. Furthermore, both memberships in INGOs and international human inflows are processes at the global civil society level and not at the intergovernmental level. We discuss these international factors first.

The effects of linkages to international society, both in terms of memberships in IGOs (in models 2) and INGOs (in models 3), are strong in all but one analysis. The positive effects for both variables support the idea that linkages to world models concerning human rights encourage participation in the international human rights movement. The effects of IGO memberships disappear, however, when we add INGO memberships in all the analyses. As we discussed earlier, nongovernmental actors have played key roles in the global expansion of

TABLE 6: Panel Analysis of Change in Memberships in Human Rights International Nongovernmental Organizations (HRINGOs), 1978–88

	Model 1	Model 2	Model 3
Lagged DV			
HRINGOs, 1978	.29* (.11)	-.07 (.15)	-.22 (.18)
Independent variables			
Education	.003 (.11)	-.06 (.12)	-.07 (.12)
Rights index	.15*** (.03)	.15*** (.03)	.14*** (.03)
HRIGO memberships	.03 (.09)	.04 (.09)	
Human inflows	.26 (.17)		
Imports of goods and services	-.10 (.16)	-.09 (.16)	
IGO memberships	1.41** (.43)	.86 (.55)	
INGO memberships		.60+ (.35)	
Constant	1.30*** (.35)	-3.77* (1.72)	-3.04† (1.54)
Adjusted R ²	.519	.581	.584
(N = 77)			

Note: Unstandardized coefficients are reported; Standard errors in parentheses. Variables measured in c. 1978.

† $p < .10$ * $p < .05$ ** $p < .01$ *** $p < .001$ (two-tailed tests)

human rights; they have a greater commitment to human rights issues and are less concerned about eroding state sovereignty. Thus, citizens in those countries that are well connected to global civil society — where human rights activism has been intensifying — will become more aware of human rights issues, and are more likely to get involved in the international human rights movement. This finding provides support for the argument in world society research that international governmental and nongovernmental arenas need separate analytical treatment.

International inflows of human and material resources show divergent effects. Inflows of human resources measured as people entering the country in the short

term exert a positive significant effect on citizen memberships in HRINGOs in all analyses except the first panel (1978–88). On the other hand, inflows of material resources measured as imports of goods and services are negatively associated with the dependent variable, although the effect is significant only in cross-sectional models without the INGO variable. The effect of human resources provides partial support for our argument, but the negative effect of imports is rather puzzling. The effect of human inflows indicates that openness of national borders to people from outside facilitates local actors to gain mobilizational resources, including ideas about human rights and connections to human rights activists outside, thus encouraging them to join the international human rights movement. Thus, this indicator can be deemed as a measure of linkage to global civil society; it therefore provides further support for the world society argument.³⁰ The negative effect of imports suggests a need for a better measurement of inflows of material resources for social movements. Because the vast majority of imported goods have no bearing on potential for social movements, the variable may be simply measuring international economic exchange, or even dependence on foreign goods. Thus, the negative effect may be showing that citizens in a dependent economy are less likely to have the capacity to participate in the international human rights movement.

On the other hand, few of the domestic factors influence HRINGO memberships. Among them, political opportunity structure is the only variable that has a significant effect even when international factors are included in the analysis. Most of the analyses show that domestic political opportunities increase citizen participation in HRINGOs. This provides support for the argument about a spillover effect of domestic political opportunities as opposed to the argument about a boomerang effect. It is worth noting that the effect of this variable becomes negative (and significant in the first model) in the second panel. Thus, while advanced democracies with many political opportunities may have led the international human rights movement in the earlier period, countries with lower levels of civil and political rights account for the expansion of citizen memberships in HRINGOs in the second period. This suggests a process of “catching-up” to memberships more in line with those of their democratic equivalents. The second panel captures the expansion of HRINGOs in the period since human rights have gained taken-for-granted status in the international political arena. Thus, the “catching-up” process may be deemed as a “norm cascade,” in which accepted norms of human rights impact local actors across the globe (Risse, Ropp & Sikkink 1999). Linkages to international civil society were important factors in this “catching-up” process; countries with more inflows of human resources and greater memberships in INGOs were more likely to increase citizen participation in HRINGOs.

In sum, the analyses indicate that while the developed democracies may have contributed to the expansion of HRINGOs in earlier periods, countries with greater linkages to global civil society, many of them with a weak economy and an

TABLE 7: Panel Analysis of Change in Memberships in Human Rights International Nongovernmental Organizations (HRINGOs), 1988–1998

	Model 1	Model 2	Model 3
Lagged DV	.88***	.64***	.44*
HRINGOs, 1988	(.11)	(.13)	(.17)
Independent variables			
Education	.02 (.15)	-.25 (.16)	-.23 (.16)
Rights index	-.11* (.05)	-.04 (.05)	-.07 (.05)
HRIGO memberships	-.06 (.06)	-.07 (.06)	
Human inflows	.71** (.20)		
Imports of goods and services	-.28 (.22)	-.18 (.22)	
IGO memberships	.48 (.46)	-.31 (.53)	
INGO memberships	1.35** (.42)		
Constant	1.47*** (.40)	-1.87 (2.07)	-2.23 (2.18)
Adjusted R ²	.577	.640	.629
(N = 77)			

Note: Unstandardized coefficients are reported; Standard errors in parentheses. Variables measured in c. 1988.

* $p < .05$ ** $p < .01$ *** $p < .001$ (two-tailed tests)

undemocratic polity, have been the driving force for the expansion in recent periods. The panel analyses demonstrate the shift in the effects of independent variables dramatically. The first panel (1978–88) shows that domestic political opportunities have a stronger effect on growth in citizen memberships in HRINGOs than linkages to global civil society. In the period from 1988 to 1998, however, domestic opportunities are no longer relevant and the effects of linkages to global civil society and human inflows become the most important factors, underscoring the norm cascade that was taking place. This finding suggests a parallel to the process in which local social capital nurtures democracy in a country

(Paxton 2002); just as vibrant civil society and vigorous associational life are beneficial for the establishment of a democratic political system in a country, linkage to global civil society works as what might be called “global social capital” and encourages advancement of human rights in international society.

Conclusion

This article has attempted to provide a macro-sociological understanding of the expansion of the international human rights movement with empirical data on HRINGOs.

On the global level, the data show that the overall number of HRINGOs and citizen memberships increased dramatically, especially within the past twenty years, corroborating the expansion of the international human rights movement. At the national level, we find that many countries have increased their participation in the international human rights movement in the last few decades. While wealthy Western countries tend to have the most citizens who are members of HRINGOs, the least wealthy or peripheral countries consistently register the lowest level of citizen participation. However, our statistical analyses of the factors that affect citizen participation in HRINGOs suggest that rich democratic countries are not driving the expansion alone. Indeed, citizens in less industrialized and less democratic countries are increasing their involvement in international human rights activities. Our analyses show that linkage to global civil society is a key factor in drawing citizens into human rights activism.

This article makes unique contributions to the study of social movements, as it presents the first statistical analyses that explore the dynamics between global and local factors affecting social movements. An emerging literature in social movement studies has speculated on the international factors in contemporary social movements, but few scholars have attempted to test these effects in empirical quantitative analyses. Our analyses show that global factors, particularly linkage to global civil society, have strong effects on participation in the international human rights movement controlling for domestic factors. This is especially the case in the more recent era when human rights were more institutionalized the world over. Considering the active roles nongovernmental actors play in other types of social movements, such as environmental activism and peace movements, and their increasing level of transnational coalition, one might argue that global civil society is an important factor in contemporary social movements in general. Another variable that can also be considered a measure of linkage to global civil society, human resource flows, showed a strong impact on involvement in global human rights activism. Thus, future research on contemporary social movements, whether transnational or domestic, might need to examine the role of global civil society as well as global-level political opportunities and international resource flows.

This research also provides new insights in the globalization literature. First, we use new measures of international linkages that not only enable testing the impact of global factors in social movements, but also add new dimensions to the study of global politics. Research in the world society approach has emphasized the effects of linkages to global society on local politics, but has used memberships in international organizations almost exclusively. This often invited criticisms about the underspecification of the effects of linkages. Our linkage variables specify what effects different types of linkages exert, as we operationalize them along the three key dimensions in social movement theories. Thus, we combine the two literatures, social movement theories and globalization literature, and create a set of analytical tools that expand our understanding of contemporary social movements and global-local dynamics in them.

Our analysis also confirms the process of norm cascade and clarifies the mechanisms by which global norms impact local politics. In earlier periods, when human rights ideas had not become globally accepted norms, endogenous factors shaped individuals' participation in HRINGOs. With the consolidation of global human rights norms since the mid-1980s, however, global factors have become the most powerful predictors of participation in the global human rights movement. These findings also contribute to the world society literature, as they specify changes in the impact of global models over time.

Finally, our analyses sort out different effects of international governmental and nongovernmental actors. Research on global politics has suggested the different roles for the two sectors, as do studies on international human rights. Our findings confirm the argument that nongovernmental actors have been playing the leading role in the expansion of global human rights in the last few decades. Because of their flexibility and lack of concern for state sovereignty, they have been able to aggressively push the international human rights movement forward. We suspect that this is the case in other global issues such as environmentalism and global inequality. Thus, understanding of the evolution of the international human rights movement would provide insights into how other international progressive social movements might evolve. While these movements tend to originate in advanced democracies, as they diffuse throughout the world, participation by citizens in developing countries increases and pushes the movement forward to impact global and local politics. Global civil society plays a key role in this evolutionary process, as it sustains political life outside governmental networks and enhances progressive movements that governments tend to abhor. With increasing participation of activists in developing countries as well as those in developed countries in global civil society, the potential for more global progressive social movements is growing, as is the potential for real social change in important issue areas such as global inequality and environmentalism. By focusing on one of the most prominent international social movements, the human rights movement, this study offers an important first step to understanding these global trends.

Notes

1. We also note that some human rights nongovernmental organizations are *domestic* in their scope (Ball 2000). Although studies of human rights nongovernmental organizations that operate at the national level contribute to the working of local human rights politics, they do not directly address an important aspect of human rights politics, namely, the interaction between global and local human rights movements. Our research examines *international* human rights nongovernmental organizations, and hence enables us to explore the connection between global and local human rights processes and the interplay between international governmental networks and global civil society.
2. We use the term *global civil society* to refer to the realm of international collective life in which nongovernmental actors form networks, advance claims and establish solidarity (Wapner 2002).
3. Recent scholarship has pointed out the contributions by small countries as well (Waltz 2001).
4. See for an exception, Smith, Chatfield, and Pagnucco (1997).
5. We note that our membership data only measure the breadth of country participation, not the depth of participation. To examine the depth of participation, we need data on how many people from each country has joined HRINGOs. Future research should consider whether the breadth and depth of participation are correlated.
6. See Boli and Thomas (1997) for more on the Yearbook and on data quality and coding issues.
7. Some of these organizations make great contributions to human rights protection, but to the extent they are focused on short-term relief regardless of who the victims are and do not aim for structural changes, we see them as not interested in promoting human rights in the long term.
8. For all years, we examined all organizations in the relevant categories, and coded only those that fit our definition of international human rights organizations.
9. Part of the process both authors took in rating the organizations was to give each organization a score on a four-point scale (0–3) with 3 meaning “definitely a HRINGO” to 0, “not a HRINGO.” Using these scores, we compared ratings using reliability analyses. Average measure intraclass correlations were over .92 for all three years, leading us to believe that our codings were accurate and consistent. In the following analyses we include only those organizations that have a score of 3.
10. The apparent drop-off since the mid-1990s has more to do with the reporting process, which delays entry into the Yearbook by several years, than with an actual decline in founding.
11. The total number of countries with citizen members (aggregate number of countries listed as having membership in HRINGOs) is 1,847 for 1978, 3,443 for 1988, and 7,132 for 1998.
12. Table 1 summarizes the descriptive statistics on HRINGOs at three time points including a list of the top ten and bottom ten countries in terms of the number of

memberships in HRINGOs.¹¹ According to the UIA, representatives from each organization were asked the following question to ascertain organizational and/or individual memberships: "Please indicate the countries in which your organization has [members]. Also, please indicate any international organizational members."

13. Note also that quite a few of the countries included in this table do not make it into our analyses due to missing data on our independent variables. This is especially true of small, developing countries.

14. The processes by which individuals can file complaints are exemplified in the procedure in the U.N. Commission on Human Rights established by Resolution 1503 in 1970, and the first optional protocol to the International Covenant on Civil and Political Rights (entered into force in 1976), which is monitored by the Human Rights Committee.

15. This argument is parallel to that of Ramirez, Soysal, and Shanahan (1997): they found that endogenous factors circumscribed the patterns of female enfranchisement in earlier periods but that exogenous factors became more important over time, corresponding to the increasing institutionalization of the female enfranchisement at the international level.

16. We also ran the panel analysis for 1978–98. The results are largely similar to those for 1988–98.

17. Recognizing differences in civil liberties and political rights, we first ran the models using the two indices separately and found very similar results to the ones presented in the following sections. This, combined with their high degree of collinearity, is the reason we decided to combine the two measures into the rights index reported in this paper. The analyses were also run using a measure of democracy from the Polity IV Project. As the data were less complete than those used here, we report just the results for the rights index. The results were very similar and are available from the authors upon request.

18. We note that this variable includes some nonmaterial resources: "services" inevitably include resources that do not necessarily take the materialized form. Nevertheless, the vast majority of "goods and services" measured by this variable can be distinguished from human inflows and therefore, we deem this variable to measure inflows of material resources.

19. Direct measures of flows of international human rights activists and funding would be ideal for testing the argument that inflows of mobilizational resources encourage participation in the international human rights movement. However, such data are not readily available for a large number of countries. In addition, our measures have the advantage of capturing flows of resources objectively and generally, thus enabling us to take into account the spillover effects of inflows of resources. See Keck and Sikkink (1998a) for a description of U.S. foundation grants for international human rights work from 1977–91.

20. We also tried a secondary enrollment ratio variable in place of the tertiary enrollment ratio variable. The results for secondary and tertiary enrollment were nearly identical. Because human rights education is primarily done at higher education levels and citizens with higher education are more likely to join HRINGOs, we report just the results with this variable. The other results are available from the authors.

21. Data for 1975 provided the most complete data for the 1978 time point, as did 1995 for the 1998 time point, while data for 1988 were complete.

22. In model 3, we did not include the measure of international inflows of human resources as it was highly correlated with INGOs.

23. Because of this, our arguments about earlier models have to be taken with caution. Yet, we find the results of model 1 to be important since they allow us to compare the impact of domestic and international factors over time.

24. These results are available from the authors by request.

25. This compares with yet another possibility, that is, the percent growth (time minus time₁ over time₁). As the time₁ measure is close to zero for several countries in the analysis, we decided to use the method described here.

26. In order to further specify the effects of the Rights index, we broke the countries into two groups, one with just the less-rights countries (1–7 on Rights variable) and the other with just the more-rights countries (8–14 on Rights variable), and ran the same panel analyses as presented in Tables 6 and 7. For more-rights countries, there is no effect for rights in the earlier period; in the more recent period, the effect is negative. For less-rights countries, the effect of rights is positive in the earlier period; in the more recent period, there is no effect. This suggests that in the earlier period, citizens in relatively democratic countries among the less-rights countries were more likely to participate in HRINGOs while individuals in more-rights countries were equally likely to participate in HRINGOs. In the recent period, citizens in the most democratic countries are not increasing their participation in HRINGOs any longer, while those in less-rights countries are participating in HRINGOs across the board. We also ran the panels with a dummy variable for MORE and LESS rights [1 = more rights (8–14) and 0 = less rights (1–7)] in place of the rights index. The results were virtually identical to those presented here for both panels. We thank one of the anonymous reviewers for suggesting we run this analysis.

27. Results described in this section are available from the authors upon request.

28. Boli and Thomas (1997) argue that by “promoting human rights ideology and critiquing world inequality, many international nongovernmental organizations resist the interests of the core” (fn. 2).

29. According to Crystal (1994), few Middle East human rights organizations are regional in character. Those organizations that were able to emerge in the 1980s tend to be national in their scope and membership. This may explain why citizens in this region are less likely to join HRINGOs.

30. This is an important point as this finding undermines a potential criticism that participation in HRINGOs is simply an extension of participation in INGOs in general.

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APPENDIX: Countries Included in the Analysis of Nation-State Memberships in Human Rights International Nongovernmental Organizations, 1978–1998

Algeria	Korea, Republic of
Australia	Lesotho
Austria	Madagascar
Bangladesh	Malawi
Barbados	Mali
Belgium	Malta
Benin	Mauritius
Bolivia	Mexico
Botswana	Morocco
Brazil	Nepal
Burkina Faso	Netherlands
Burundi	Niger
Cameroon	Norway
Canada	Pakistan
Central African Republic	Paraguay
Chad	Peru
Chile	Philippines, The
China	Saudi Arabia
Colombia	Senegal
Congo	Sierra Leone
Costa Rica	Spain
Cyprus	Sri Lanka
Ecuador	Swaziland
Egypt	Sweden
El Salvador	Switzerland
Fiji	Syria
Finland	Thailand
France	Togo
Ghana	Trinidad & Tobago
Greece	Tunisia
Guyana	Turkey
Honduras	United States of America
Hungary	Uruguay
Iceland	Venezuela
India	Zambia
Indonesia	
Ireland	
Italy	
Jamaica	
Japan	
Jordan	
Kenya	

Strategy Matters: The Contingent Value of Social Capital in the Survival of Local Social Movement Organizations*

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Abstract

Social capital plays a central role in facilitating the mobilization of social movement organizations (SMOs). Do the initial mobilization advantages of social capital persist, however, as movement organizations evolve? And do the strategies pursued by social movement organizations affect these advantages? We investigate these questions through a broad empirical analysis of factors affecting the short-term persistence of local chapters of Mothers Against Drunk Driving (MADD). Reasoning that multiple forms of social capital would each have a positive impact on survival, we assess the independent effect of several indicators of social capital with mixed results. Consistent with prior research, we find that access to patronage at founding and a greater stock of weak ties in the community confer survival advantages. Yet SMOs that emerged from preexisting groups and those with leaders previously tied to one another through civic engagement were less likely to persist, raising a first cautionary flag about the generality of advantages of resource co-optation and "bloc recruitment." The effect of preexisting, strong ties among group leaders varies by how much emphasis the group placed on victim aid activities. Those ties conferred expected survival advantages on groups that did not strongly emphasize victim aid activities. The implications of these results are discussed.

Social movement organizations (SMOs) are named groups of citizens who have, more or less formally, banded together to pursue or resist social change. Despite the centrality of SMOs in theories of social movement mobilization, researchers

* The authors would like to thank Mario Diani, Deb Minkoff, Marieke Van Willigen, Lane Kenworthy, Doug McAdam, Mark Chaves, Doug Sloane, John Wilson, and Kenneth Andrews for their helpful comments on earlier drafts of this article. The research was supported in part by the East Carolina University Faculty Senate Research/Creative Activity Grants Committee and the Thomas W. Rivers Endowment. Partial support for the research was also provided by the National Science Foundation (Grants SES-8419767 and SES-8921052). Direct correspondence to Bob Edwards, A-402 Brewster Hall, Department of Sociology, East Carolina University, Greenville, NC 27858-4353. E-mail: EdwardsR@mail.ecu.edu.

have not yet adequately specified the intraorganizational factors that influence their continued mobilization (Cress & Snow 1996; Edwards & McCarthy 2004; Lofland 1996). Previous research on SMO mortality has shown that the likelihood of survival of small local SMOs was enhanced by features of their social capital and organizational strategy, in contrast to large and national SMOs, where these factors were unimportant (Edwards & Marullo 1995). In this article, we seek to better understand the role of social capital and organizational strategy in the short-term persistence of small local SMOs. We address the following research questions: (1) Do initial stocks of social capital enhance short-term survival? (2) Do subsequent strategic choices about group goals and human resource recruitment affect the continued mobilization of local SMOs? (3) Do the strategies that an SMO pursues interact with its initial stocks of social capital in ways that affect group persistence?

As discussed below, social capital is defined as the networked access to resources available in a specific setting (Foley & Edwards 1999). Moreover, social capital in this sense can be conceived as a precondition that either facilitates or constrains the mobilization of SMOs. Yet social capital is also an outcome of mobilization (Diani 1996). We argue that the new social capital produced through SMO mobilization tends to reproduce earlier patterns of resource access. Thus the social capital that emerges from mobilization may under certain conditions either further constrain or facilitate subsequent collective action. In cases of prior member and resource homogeneity, the social capital produced through mobilization can be expected to increase the risk of social closure, thereby limiting resource access and undermining persistence. Among SMOs emerging from a more heterogeneous resource base, however, the social capital produced through mobilization should have the opposite effect and enhance resource access and with it the likelihood of persistence.

In what follows, we depend on evidence gathered in 1985 from local chapters of Mothers Against Drunk Driving (MADD) that allows us to describe and explain patterns of local SMO persistence during the subsequent three years. About eight in ten (79%) MADD chapters active in 1985 were still active in 1988. We assess the separate impact of several forms of social capital on the short-term persistence of these small local SMOs. We also examine the impact on persistence of strategic decisions to recruit participants through member social networks and to focus group activities on providing direct services to drunk-driving victims. We are especially interested in whether such strategic choices interact with previous patterns of homogeneity or heterogeneity and in their effects on SMO persistence. In the next section, we discuss the founding patterns, resources, and activities of MADD chapters at the time of our study and their place in the broader movement against drunken driving at the time.

The Anti-Drunken-Driving Movement and MADD Chapter Founding

The movement against drunken driving began in the late 1970s, and by 1985 it was comprised of a number of national and local organizations. Two national umbrella groups, Mothers Against Drunk Driving (MADD) and Remove Intoxicated Drivers—USA (RID), knitted together a large number of local chapters spread across many states. In 1985 there were about 71 active chapters affiliated with RID and 376 active chapters affiliated with MADD. In addition, a few groups either were part of state or regional coalitions (such as the Alliance Against Intoxicated Motorists in Illinois and Rid Arizona of Intoxicated Drivers in Arizona) or had no formal affiliation with other groups (e.g., Virginians Against Drunk Driving).¹ By 1985, local activists had come close to establishing a MADD outpost in every sizable U.S. community.² The typical group had a small membership and a very modest budget, while a few local MADD chapters had considerable income and members.³ Most groups relied primarily on leader and member volunteers supplemented by small donations of money and in-kind contributions to carry out their work. Nevertheless, these local SMOs varied considerably in their 1985 mobilization of financial and human resources. About four in ten (39%) groups had raised less than \$1,000 during the previous year, and only 15% had raised more than \$6,000. Seven in ten groups (71%) had between 20 and 99 members in 1985, while just 21% had more than 100.

The typical founding pattern for local MADD groups consisted of a single individual, who may or may not have been a victim, contacting the national MADD office about how to begin a group and then publicly announcing the effort to begin one. As part of a “consensus movement,” MADD chapters benefited from widespread name recognition and generalized support for their goals in ways not applicable to local SMOs in oppositional movements (McCarthy & Wolfson 1992). Consequently, the mere public announcement of a local chapter in formation often attracted a broad cross-section of victims and nonvictims alike who were previously unknown to the individual who had taken the initiative in contacting the national MADD office. Contrary to popular perceptions, the typical MADD chapter was neither led by victims nor composed primarily of victims. In fact, the majority of MADD chapters were formed without large numbers of victim members, and only about 10% of MADD chapters had even one victim among its three chapter officers. Nevertheless, in many cases chapter founders drew upon differing reserves of social capital to facilitate their efforts. Fewer than one in five (17%) local chapters either emerged from a preexisting organization or had access to patronage at founding (19%) as indicated by the receipt of a small start-up grant. In most cases the founding and early leadership of local MADD chapters shared no prior relationship, while only 13% of group leaders shared the strong ties of family or friendship prior to their involvement in MADD and another 15% shared the weak ties of prior acquaintance through community, religious organizations, or work. The groups also varied markedly in the extent of their weak ties in the broader community.

Moreover, by the end of 1985, more than 60% of the groups were still recruiting some or most of their new members from the pool of member relatives, friends, and acquaintances and exhibited wide variation in the emphasis they placed on victim assistance activities (mean = 3.85, S.D. = 1.86). We now discuss the theoretical framework with which we examine the effects of social capital and organizational strategy on SMO persistence.

Theoretical Expectations

Social capital, for our purposes, is usefully conceptualized as networked access to resources present in specific sociopolitical contexts⁴ and is consistent with recent efforts to expand the conceptualization of forms of capital beyond more narrowly economic approaches,⁵ such as Bourdieu's emphasis on the analytic centrality of unequal access to differing types of resources by the possession of more or less durable relationships (Bourdieu & Wacquant 1992). The resource mobilization perspective used here, moreover, aims to better understand how groups overcome durable patterns of resource inequality in order to pursue their social change goals (Edwards & McCarthy 2004; Tilly 1998) and how strategic decisions shape both how SMOs gain access to resources and how those resources are used.

SOCIAL NETWORKS AND SMO PERSISTENCE

Previous research on social movement emergence and mobilization demonstrates how social capital in the form of access to human and material resources mediated through preexisting social networks facilitates movement mobilization (Diani & McAdam 2003; Edwards & McCarthy 2004). However, it provides little guidance about the role of such networks after the first stages of successful mobilization (Kitts 2000). Social networks may be conceived of as preconditions capable of either constraining or facilitating movement mobilization and also as the outcomes of movement mobilization (Diani 1995; Gould 2003). In either case, the narrower and more socially isolated the networks, the less useful we would expect them to be in sustaining mobilization. Our expectation is consistent with an analysis of small local peace movement organizations (Edwards & Marullo 1995) that found them much more likely to persist over a four-year period (1988-92) when they had a broader range of ties to other social movement and community organizations in their immediate area.

The extensive body of work produced by network theorists and researchers provides some guidance in thinking about how social capital might affect group persistence (Kitts 2000; Lin 2001). First, we would expect, following a strength-of-weak-ties logic (Burt 1997; Granovetter 1973), that a broader range of nonredundant weak ties would provide greater access to information and other resources than would a smaller stock of strong ties, since the latter often provide

redundant points of access to the same resource. Thus, SMOs founded by individuals who already share strong social ties would less widely penetrate the broader structure of social relations in a community than would SMOs founded by individuals whose strong ties developed subsequently in the context of their movement activism. And we would expect such social isolation to be exacerbated by the choice to place a heavy emphasis on recruiting members through relatives, friends, and acquaintances. Thus, SMOs led by “old friends” will have less access to social resources because of redundancies in the accumulated stock of network ties represented among their leadership, especially if those are the ties they choose to emphasize in building the SMO. In such a case, the advantages of strong preexisting ties among SMO leaders, such as existing communication networks, proximity, and trust, which facilitated the founding of the SMO, can become a subsequent liability due to a corresponding lack of wide social penetration that would aid in recruiting new members among diverse pools of potential adherents as well as in appropriating social and other resources embedded in those diverse social infrastructures.

Diani (1995) develops a similar argument to explain surprisingly low levels of mobilization by the Italian environmental movement during the 1970s and 1980s, given the widespread sympathy for its goals among Italian citizens. His evidence shows that environmental mobilization depended heavily on social networks developed during earlier waves of far more contentious movement activity around environmental issues that drew much less public support. Thus, those preexisting networks facilitated environmental mobilization but at the same time isolated environmental organizations from wider social worlds, hence limiting their access to social, material, and human resources necessary for subsequent mobilization. Gould (1991) also employed a logic similar to ours in explaining the role of overlapping social networks in facilitating mobilization in the Paris Commune.

Second, following Knoke and Wisely (1990), we would expect an inverse relationship between the level of social homophily that characterizes an SMO and its ability to take advantage of its social capital. Based on the principle of social homophily, Knoke and Wisely (1990) conclude:

As a result of the like-attracts-like principle, social movement organizations tend over time to develop increasingly homogeneous memberships that are relatively isolated from the surrounding social structure. Movements carve out fairly narrow niches in a population, drawing their sustaining resources from specialized regions. Rapid resource depletion can follow. Information tends to re-circulate among those who already possess it, and new ideas have difficulty taking root. To break out of these confines, social movements must rely on those members who have or can develop social contact with broader ranges. (70)

All else being equal, then, SMOs with more homogeneous memberships will have less networked access to mobilizable resources embedded in social infrastructures than will SMOs with more socially diverse memberships. SMOs that start with homogeneous memberships will over time attract newcomers who

are “their kind of people,” and while they may experience rapid short-term growth, their outreach potential will later be limited. By contrast, groups with more diverse members at founding might initially experience greater difficulties getting the group off the ground. But, having done so, their diversity should provide them access to a wider range of resources and therefore increase their likelihood of survival.⁶

PATRONAGE AND SMO PERSISTENCE

Financial patronage is one mechanism through which SMOs gain access to resources, and the provision of initial or ongoing financial support by patrons is not uncommon for SMOs (Edwards & McCarthy 2004). Walker (1991) found that initial patronage, in the form of start-up grants, was common among national citizens' groups in Washington, D.C., in the 1980s, and those groups with access to such patronage at founding were more likely to have received later support. We would expect that the “privileged” groups (Gamson 1990) that begin with access to benefactors would be more likely to retain such access. And ongoing access to patrons, whether individuals, organizations, or government agencies, should be expected to increase the likelihood of survival for SMOs. Indeed, this is exactly what Cress and Snow (1996) found in their study of SMOs among the homeless in a number of U.S. cities. Initial access to patrons, as indicated by the receipt of a start-up grant, then, is expected to increase the likelihood of SMO survival.

Prior social movement research, however, has tended to blur an important analytic distinction between having access to resources through patronage and the specific type and amount of resources received from patrons (Edwards & McCarthy 2004). For professionalized, national organizations, financial patronage and grant size are particularly important, whereas among local groups such as those studied by Cress and Snow (1996), the provision of in-kind resources (e.g., office space) proved especially crucial. In the case of local groups as small and dependent on volunteers as the MADD chapters were, the tie to a patron and the prospects of that relationship providing continued resource access may well be more important for group survival than the actual dollar value of any small start-up grant (Aldrich 1999). Thus, access to patronage, as indicated by the receipt of a small start-up grant, is appropriately treated as an indicator of social capital — a networked form of resource access — present at founding that will likely persist over the short term for small local groups.

THE ROLE OF ORGANIZATIONAL STRATEGY

Once social movement actors gain access to resources, those resources are not necessarily exhausted immediately or used efficiently (Edwards & McCarthy 2004). Organizational strategy is a key factor in how they are used, with the potential to account for organizational outcomes such as persistence. SMO leaders interpret cues from the broader social and political context and make strategic choices that can substantially alter the trajectory of their group. Certain kinds of organizational

strategies can change the structure of a group's social networks, which may, on the one hand, exacerbate social closure and reduce access to resources or, on the other, extend the group's social reach and enhance subsequent access. Most social movement research has treated social networks as structural preconditions that either facilitate or constrain SMO emergence and mobilization, as reflected in our earlier discussion of social capital.

However, social networks are also outcomes of movement mobilization (Diani 1997) that may be shaped consciously or unconsciously by the strategic choices of SMO decision makers. Olemacher's (1996) discussion of "social relays," for instance, emphasizes the conscious choice of organizational strategists to maximize the transmission of information and resources through network ties. To be effective in mobilization, social relays must strike a balance between a broad base of weak ties that tap into the heterogeneity of society and a "critical mass" of relatively homogeneous subnetworks among activists and leaders, especially at the outset of mobilization. Consequently, "adjusting and mediating between heterogeneity and homogeneity is the task of ties within the relay" (Olemacher 1996:202). Many SMO leadership decisions, whether conscious or unconscious, can directly affect the balance between the homogeneity and heterogeneity of a group's multiple social networks.

In our analysis, we consider the impact on chapter persistence of two organizational strategies and pay particular attention to their interaction with network preconditions and their relationship to network outcomes. First, local MADD chapters engaged in a variety of activities to mobilize resources, especially efforts intended to recruit new members. These included using mass media outlets to advertise the group's activities, recruitment through direct mail or phone, and setting up displays or booths in malls and other public places, none of which depends on social network ties. Central to our analysis, in contrast, is the varying extent to which MADD chapters also recruited members through the social networks of their membership. Prior research indicates that using such social networks for recruitment clearly benefits social movement mobilization and SMO formation. Generally, we expect that the benefits of this recruitment strategy would continue over time and enhance the persistence prospects of small local SMOs such as those examined here. Yet the research by Diani (1995) and Knoke and Wisely (1990) discussed above suggests that under certain circumstances networked recruitment can exacerbate social closure and thereby erode the prospects of group persistence.

Second, local MADD chapters undertook a variety of activities to directly pursue their goals, including public education, literature distribution, seeking news media coverage, legislative and court advocacy, and the provision of direct services to aid drunk-driving victims. We consider here only the extent to which chapter leaders focused group activities on providing direct services to drunk-driving victims. There are a number of reasons to expect a strong emphasis on direct service to drunk-driving victims to enhance a group's chances for survival. First, it brings leaders

into close contact with victims, many of whom are likely recruits to the chapter. In addition, the haphazard nature of drunken-driving victimization should increase network heterogeneity among the actual victim recruits. And, finally, the public effort on behalf of victims should enhance the legitimacy of a local group, especially those not led by victims.

Another possibility exists, however. A number of the MADD chapters were organized around specific drunk-driving crash victims and their close associates. Some of these chapters developed a wider reach and undertook a broad range of anti-drunken-driving activities. Yet others placed heavy emphasis on victim services and turned inward so extensively during an initial period following founding that they became closed off and subsequently had difficulty reaching out after having worked through an initial episode of victimization (Van Willigen & Taylor 1996). We discuss this possible outcome below.

THE INTERACTION OF VICTIM ASSISTANCE EMPHASIS AND STRONG LEADERSHIP TIES

We expect that the leadership choice of focusing chapter activities on victim aid may enhance access to resources, but under certain circumstances it may also promote social closure. The liability of social homophily for survival in such self-help-oriented MADD chapters suggests an interpretation. Strong preexisting leadership ties through kinship and friendship exacerbate the centripetal tendencies of a strong emphasis on victim assistance. Recall that some MADD chapters were organized around specific instances of drunk-driving victimization by surviving victims of that incident and their close associates. Not all such groups focused chapter activities on victim assistance, but some did. Those that did are likely typical of a relatively small subset of MADD local chapters that focused on self-help and on working through the grief of the group's collective victimization.

We consider two reasons why self-help-oriented MADD chapters would be more likely to disband over a three-year period. First, leaders of the group might have successfully worked through their own victimization and disbanded, essentially working themselves out of a job. Yet it is worth noting that even this small subset of chapters reported having a broader range of goals than just self-help. Moreover, while such groups may have been successful in working through a specific instance of victimization, the number of drunk-driving victims remains high nationwide to this day. Thus, we think it is implausible to argue that any of the MADD local chapters active in 1985 had disbanded by 1988 because they had in any sense successfully solved the drunk-driving problem, let alone met the needs of drunk-driving victims in their community.

A second, and we believe more plausible, explanation would highlight the extent to which social closure built up during a year of strongly focused self-help activities, especially among a group with strong preexisting social ties, would hinder any subsequent efforts to broaden its membership and scope of activities following the

initial episode of victimization. Groups whose leaders were previously tied by the strong bonds of family or friendship and chose to heavily emphasize victim aid activities fit just such a self-help profile. Thus, we would expect the strategic choice of placing a heavy emphasis on providing aid to specific victim cases to promote social closure in those chapters whose leaders had strong preexisting ties rooted in friendship and family.

In sum, we expect, first, that network preconditions will vary considerably across newly formed SMOs and, second, that those network attributes will be manipulatable to some extent by group leaders as a matter of strategy. Following Olemacher (1996), we expect SMOs that combined strong ties among leaders with extensive weak member ties in wider social contexts to be more likely to persist. However, in cases where a heavy emphasis on victim assistance is combined with strong preexisting leadership ties, the resulting social closure may cut chapters off from subsequent resource flows and increase their risk of disbanding.

Data, Measures, and Methods

DATA COLLECTION

The evidence we will present is drawn from a survey of 376 MADD chapters in existence in 1985 based on the December 31, 1985, chapter list, combined with 1986 county-level demographic data. A questionnaire schedule designed to elicit information on a variety of substantive questions about each organization, its members and leaders, its activities, and the extent and shape of its community involvement was mailed to the president of each local group identified on the chapter roster. The respondent completed a questionnaire, providing information about her own background and efforts on behalf of the group. She also provided information about the other officers, the membership, and the activities and structure of the group itself. Follow-ups by telephone and mail were made. These procedures resulted in relatively complete responses from 290 MADD chapters (a 77% response rate).⁷

There were a number of reasons we chose the 1985 and 1988 period for assessing SMO survival. First, it was a period of consolidation after about six years of rapid movement expansion. While 21% of local MADD chapters disbanded during this three-year period, survival rates probably increased subsequently as a result of central MADD's having increased the requirements for group formation and its programs to support local chapters having become larger and more efficient.⁸ Second, the period *after* 1988 was one of rapid professionalization of local groups and increased facilitation from the MADD national organization. These changes probably substantially altered the subsequent dynamics of group operations and survival. Of the groups still active in 1988, approximately 25% had engaged part- or full-time employees by 1990. Third, central MADD worked to replace defunct

chapters, and after 1988 many of the communities where one chapter had died had seen a new one formed, and these were sometimes difficult to distinguish from one another. We are confident, however, that very few of the surviving chapters examined here were actually replacement chapters. Thus, the period examined in our analyses captures a key transitional phase in the relationship of local MADD chapters to the national office and in the prevailing operating strategy of typical MADD chapters. During this period, local MADD chapters were comparable in size, operations, and level of professionalization with small local SMOs in other movements (Edwards & Foley 2003).

MEASURES

Survey responses allowed us to create measures of social capital and organizational strategy as well as measures of other chapter characteristics that serve primarily as controls in the analysis below. Some control measures were developed from the survey evidence, and others were derived from 1986 county-level census data. Each MADD chapter was placed in a residence county, and secondary census materials were gathered about each residence county and then attached to the primary data set. Table 1 presents summary statistics and variable labels for all measures used in the analysis.

Dependent Variable

A current 1988 MADD chapter roster was consulted to determine which of the 1985 respondent groups were still in existence on December 31, 1988. Of the 290 MADD groups that had responded to the 1985 survey, 62, or a little more than 21%, had disbanded.⁹

Social Capital

We developed five indicators of various forms of social capital that have been found to facilitate the emergence and mobilization of social movements, each of which we expected to have a positive impact on SMO persistence. To assess preexisting social ties among group leaders, the president of each chapter was asked whether she had known her vice-president and secretary prior to their getting involved in the MADD chapter and, if so, the basis of their acquaintance. Responses included family, friendship, employment, religious organizations, and civic or community organizations. Thus, we are able to measure two types of preexisting ties among chapter leaders, those that network analysts have described as strong ties and those they have labeled weak ties. Strong ties are typically defined as those inhering in intimate, emotion-laden bonds between family and close friends. By contrast, weak social ties are based in less intimate organizational involvements such as those related to employment, civic engagement in community or voluntary associations,

or religious organizations (Granovetter 1973; Krackhardt 1992; Lin 2001). Our measures of strong and weak leadership ties mirror this distinction.

The first measure, strong leadership ties through family and friends, indicates whether the chapter president was previously tied to one or both of her other officers as either a relative or a friend (1 = yes; 0 = no). The other measure, weak leadership ties through civic engagement, indicates whether the chapter president was previously tied to one or both of her other officers through work, community, or religious organizations (1 = yes; 0 = no). Relatively few MADD chapters possessed either strong (13%) or weak (15%) leadership ties.

To determine if a MADD chapter had emerged from a preexisting organization, chapter presidents were asked whether, when their chapter was formed, it was built on another organization or group where people already knew one another (1 = yes; 0 = no). About one-sixth (16.7%) reported that it had been. In completing the survey, these respondents were asked to identify the nature of the preexisting organization. Neighborhood, church, or school groups were most frequently indicated, though it is worth noting that none of the respondents reported that their chapter had emerged from a preexisting MADD chapter or any other anti-drunken-driving group.

For the past several decades, more than 20,000 people a year have died in automobile crashes in the U.S., and close to half of the crashes are thought to be alcohol-related. Each of the deaths has left grieving relatives and close friends. Thus, the personal tragedies of those directly victimized by drunken driving have created an enormous potential pool from which collective action might emerge, not to mention the availability of many others who shared the grief of victim families and close friends from a distance.¹⁰ However, victims of drunken drivers (whether direct victims or, more commonly, surviving close relatives) typically have little in common, particularly social network ties, prior to their victimization. Achieving victim status is seemingly haphazard, and new victims usually are isolated from one another socially and temporally. Thus, all else being equal, MADD chapters with a high proportion of victim members can be expected to have access to more diverse and widely dispersed "weak social ties" than chapters with few victim members, whose members are more likely to have overlapping and redundant networks of weak ties.

In the context of the movement in 1985, the term *victim* was reserved for the survivors of drunk-driving crashes, their families, and close friends. Chapter presidents were asked to estimate the proportion of chapter members who were victims of drunken driving. Responses ranged from 0 to 90%, with a mean of 31% (S.D. = 21).

Another indicator of social capital that we examine is the extent of weak membership ties in the community. We use a three-category ordinal measure to determine the extent to which weak membership ties exist in the community. It

TABLE 1: Chapter Characteristics and Persistence

	Percent Yes or Mean
Chapter characteristics	
<i>Dependent variable</i>	
Still active in 1988 (estimated annual mortality rate = 7.0)	79.9
<i>Social capital</i>	
Strong leadership ties via family and friends	13.0
Weak leadership ties via civic engagement	15.0
Emerged from preexisting group/organization	16.7
Extent of weak ties in community	
Low	8.3
Medium	80.7
High	11.0
Access to patronage at founding	18.9
<i>Organizational strategy</i>	
Emphasis on victim aid activities (0 = no emphasis; 6 = great emphasis)	3.85 (1.86)
Member recruitment through social networks	
None/few	39.3
Some	36.9
Most	23.8
<i>Controls for chapter structure, context, and resources</i>	
Total revenue in 1985	
More than \$1,000	39.0
\$1,000–\$6,000	45.6
More than \$6,000	15.4
Amount of revenue from members (0 = none; 4 = virtually all)	2.73 (1.02)
Membership size	
Small (< 20)	7.9
Medium (20-99)	70.9
Large (≥ 100)	21.3
Volunteer labor hours per week	
None	13.8
4-40 (≤ 1 full-time equivalent)	41.7
Less than 40 (> 1 full-time equivalent)	44.5
Chapter age (years)	2.10 (1.17)
Number of task committees	1.89 (2.03)
County population in 1986 (units of 10,000)	34.77 (85.99)

TABLE 1: Chapter Characteristics and Persistence (Continued)

	Percent Yes or Mean
Chapter characteristics	
Percent of local government spending for police in 1982	5.03 (1.80)
Amount of media coverage for chapter	
None to little	48.8
Moderate to high	51.2

Note: Standard deviations are in parentheses.

contrasts MADD chapters reporting an average proportion of victim members (z-score between -1.0 and 1.0) with those reporting below-average proportions (z-score less than -1.0) and those reporting above-average proportions (z-score greater than 1.0). The suitability of this three-category classification was assessed by fitting models of independence to the expanded and collapsed versions of the two-way table in which the proportion of victim members and chapter persistence were cross-classified and using the partitionable qualities of the likelihood ratio chi-square as a guide for assessing alternative classifications. Our three-category classification retained the most variation from the original table with the fewest categories without eliminating a significant amount of variation (Sloane & Morgan 1996). The measure of extent of weak membership ties is coded 0 for low, 1 for moderate, and 2 for high. About eight out of ten MADD chapters (80.7%) fall into the middle category, with 8.3% in the lower range and 11% in the highest category.

To measure access to patronage at founding, presidents were asked whether their chapter had received a start-up grant from an individual or organizational donor. About one-fifth reported having received one. The sizes of start-up grants received by the MADD chapter we examine were typically modest and not in themselves sufficient to keep a group going over a three-year period. Thus, we emphasize the patronage *relationship* rather than the actual amount received at start-up. Groups that began with a patronage relationship would be likely to gain access to subsequent resources through that relationship. Thus, we treat the relationship as an indicator of social capital (networked access to resources) among small local groups such as these. Responses were coded 1 for yes and 0 for no. About one in five groups had access to patronage at founding (18.9%), while the remainder did not.

Organizational Strategy

We include two measures of organizational strategy. Chapter leaders were asked how much emphasis their groups devoted to “victim assistance in general,” “working with specific victim cases,” and “developing victim support groups,” with responses coded 0 for “none,” 1 for “a little,” and 3 for “a great deal.” Their responses were

summed, and the resulting 7-point scale ranges from 0 to 6, with a mean of 3.86 (S.D. = 1.86) and alpha reliability coefficient of .78. Our other measure of organizational strategy — the utilization of social networks for membership recruitment — indicates the proportion of the 1985 chapter membership recruited through preexisting friendship and family networks and is coded 0 for “none or a few,” 1 for “some,” and 2 for “most.”

Control Variables

Four control variables for financial and human resources are included. Total revenue in 1985 is coded 0 for “less than \$1,000,” 1 for “\$1,000–\$6,000,” and 2 for “more than \$6,000.” Thirty-nine percent of MADD chapters had mobilized less than \$1,000; 45.6% were in the middle category; and only 15.4% had budgets over \$6,000. Amount of revenue from members is a Likert-type measure ranging from 0 for “none” to 4 for “virtually all,” with a mean of 2.73 (S.D. = 1.02). Membership size is coded 0 for “fewer than 20,” 1 for “20–99,” and 2 for “100 or more.” Fewer than one in ten groups (7.9%) had fewer than 20 members, with 70.9% having between 20 and 99 members and 21.3% having 100 or more. Volunteer labor hours per week is coded 0 for “none,” 1 for “less than or equal to one full-time equivalent (4–40 hours),” and 2 for “more than 1 full-time equivalent.” About half of the MADD chapters (44.5%) reported volunteer labor in excess of one full-time equivalent, with 41.7% mobilizing from 4 to 40 volunteer hours and 13.8% reporting no volunteer labor.

Five controls measuring chapter structure and community context are also included. Chapter age is measured in years as of December 1985, with a mean age of 2.10 years (S.D. = 1.17). Number of task committees indicates the number of standing committees each chapter had formed to coordinate its activities (e.g., newsletter, victim assistance, membership). The typical MADD chapter had 1.89 task committees (S.D. = 2.03). County population in 1986 is measured in units of 10,000. Percent of local government spending for police is based on 1986 county-level census data reporting the percentage of local government spending on police in 1982. Amount of media coverage for the chapter is coded 0 for “little to none” and 1 for “moderate to high.” The distribution on this measure was skewed, which led us to seek theoretically and empirically reasonable categories, contrasting groups reporting below-median coverage with those reporting median amounts or more. Thus, 48.8% of groups received little to no coverage, while 51.2% received moderate to high coverage.

METHODS

As seen in Table 1, local MADD chapters exhibit considerable variation on each of our measures of social capital and organizational strategy, allowing an examination of the effect of this variability on chapter persistence. Our analyses utilize a logistic

regression procedure to account for the dichotomous dependent variable: the short-term persistence of a small local SMO. The logistic regression results in Table 2 present exponentiated coefficients or odds ratios. An odds ratio of 1 (or not significantly different from 1) indicates no effect. An odds ratio larger than 1 indicates the factor by which odds of persistence are increased by a one-unit change in the independent variable; an odds ratio smaller than 1 shows the factor by which the odds of persistence are decreased (DeMaris 1992; Homser 1989). Model 1 examines the impact of social capital on persistence while controlling for SMO structure, context, and resources. Model 2 adds the two measures of organizational strategy, and model 3 fits an interaction between strong leadership ties among chapter leaders and the amount of emphasis placed on providing victim services.

Results and Discussion

SOCIAL CAPITAL

A comparison of models 1 and 2 shows robust patterns for our five social capital measures. Focusing on model 2, we see that strong preexisting leadership ties through kinship and friendship had no significant effect on chapter persistence, whereas chapters with weak preexisting leadership ties through civic engagement were less likely to persist (odds ratio = 0.27, indicating about a 3.7 times greater likelihood of disbanding) than those forming without benefit of such ties.¹¹ Moreover, groups that emerged from preexisting organizations were 2.70 times more likely to disband (odds of persistence = .037) than those that formed independently. By contrast, chapters with more extensive weak membership ties in the community (through higher proportions of victim members) and those with access to patronage at founding were more likely to persist. Compared to groups with the least extensive weak ties (few victim members), those with the higher proportions were 6.00 times more likely to persist (2.45×2.45). Similarly, groups whose formation was facilitated by a financial patron were 3.20 times more likely to still be active at the end of the three-year period than those that did not have access to patronage at founding.

A Liability of Resource Co-optation

How might we account for the pattern we have found whereby the obvious advantages of co-opting the social and material resources of an existing nonmovement organization to start an SMO become a liability to its short-term persistence? We turn to the concepts of resource competition and the increased likelihood of crosscutting allegiances among activists for an explanation. When an SMO is founded with strong support from an existing organization, the existing organization in effect lends resources to the fledgling organization, especially

TABLE 2: Multivariate Logistic Regression Estimates of Chapter Persistence

	Bivariate Estimates	Model 1	Model 2	Model 3
Chapter characteristics				
<i>Social capital</i>				
Strong leadership ties via family and friends	.92 (-.080, .458)	1.48 (.394, .535)	1.36 (.311, .548)	26.45** (3.28, 1.70)
Weak leadership ties via civic engagement	.20*** (-1.61, .376)	.27*** (-1.31, .450)	.27*** (-1.33, .470)	.28*** (-1.28, .475)
Emerged from preexisting group/organization	.44** (-.820, .372)	.36** (-1.03, .460)	.37** (-.983, .473)	.33** (-1.12, .481)
Extent of weak ties in community (low, medium, high)	2.03* (.709, .370)	2.07* (.729, .433)	2.45* (.894, .464)	2.67** (.981, .487)
Access to patronage at founding	1.99 (.690, .471)	2.47* (.905, .547)	3.20** (1.16, .565)	2.69* (.990, .570)
<i>Controls for chapter structure, context, and resources</i>				
Total revenue in 1985 (< \$1M; \$1M-6M; > \$6M)	2.86*** (1.05, .271)	1.60 (.469, .337)	1.79* (.582, .344)	1.82* (.597, .352)
Amount of revenue from members	.79 (-.235, .162)	1.23 (.205, .188)	1.17 (.154, .199)	1.13 (.122, .205)
Membership size (< 20, 20-99, 100+)	3.18*** (.116, .338)	1.12 (.652, .426)	1.93 (.660, .443)	1.76 (.566, .451)
Volunteer labor hours per week (none, 4-40, > 40)	1.77*** (.568, .221)	1.23 (.208, .274)	1.19 (.173, .277)	1.16 (.150, .283)
Chapter age (years)	1.21 (.188, .137)	.96 (-.041, .165)	1.02 (.020, .175)	1.03 (.025, .180)
Number of task committees	1.22** (.196, .090)	1.08 (.080, .116)	1.12 (.109, .123)	1.15 (.136, .129)
County population in 1986 (units of 10,000)	1.01* (.012, .007)	.999 (-.001, .003)	.999 (-.001, .004)	.999 (-.001, .004)
Percent of local government spending for police in 1982	1.44*** (.368, .119)	1.17 (.153, .123)	1.18 (.166, .134)	1.16 (.150, .147)
Amount of media coverage for chapter (none-little vs. moderate-high)	3.52*** (1.26, .344)	2.48** (.906, .404)	2.77** (1.02, .432)	2.97** (1.09, .436)
<i>Organizational strategy</i>				
Member recruitment through social networks	1.85*** (.617, .222)	—	1.66** (.507, .250)	1.70** (.533, .249)
Emphasis on victim aid activities	1.07 (.064, .083)	—	.78** (-.249, .116)	.84 (-.173, .121)
Strong leadership ties × chapter emphasis on victim aid activities	—	—	—	.44** (-.814, .405)
Constant		(-2.18, 1.18)*	(-2.43, 1.32)*	(-2.56, 1.34)*

TABLE 2: Multivariate Logistic Regression Estimates of Chapter Persistence (Continued)

	Bivariate Estimates	Model 1	Model 2	Model 3
Chapter characteristics				
<i>Summary statistics</i>				
Base log likelihood	—	257.77	200.98	191.31
Improvement	—	57.79	9.67	5.09
Added degrees of freedom	—	14	2	1
Model significance	—	$p \leq .001$	$p = .008$	$p = .024$
Nagelkerke R^2	—	.30	.35	.37
(N = 254)				

Note: Numbers in cells are the exponentiated betas or odds ratios, and those in parentheses are the coefficients and standard errors. An odds ratio of 1 (or not significantly different from 1) indicates no effect. An odds ratio larger (or smaller) than 1 indicates the factor by which odds of persistence are increased (or decreased) by one unit change in the independent variable.

* $p \leq .05$ ** $p \leq .025$ *** $p \leq .01$ (one-tailed tests)

human and in-kind material resources (McAdam 1982). Yet over time the primary goals of the facilitating organization should be likely to reassert themselves, and those resources previously made available to a fledgling SMO can be expected to be withdrawn in deference to the pursuit of the organization's core goals. This could happen, for example, when a local congregation experiences leadership turnover and the new leaders are unsympathetic to the auxiliary SMO, or when existing leaders come to consider other issues or priorities to be more pressing. Alternatively, a downturn in resources available to the facilitating organization may spur retrenchment and the reassignment of personnel, leading to the withdrawal of support from other groups to which they have close ties. In either case an SMO dependent for support on another organization could be expected to experience greater difficulty sustaining its efforts.

Our interpretation of the liability of weak leadership ties through civic engagement extends this argument. Overlapping social networks of leaders stemming from civic engagement clearly can create opportunities that make the task of forming a small local SMO easier. Yet those opportunities come with competing obligations as well. Volunteer SMO leaders have numerous demands made on their time, as well as crosscutting allegiances to other community groups that can compete for their time and energy, drawing them away from activity in a MADD chapter. As the core leadership of local SMOs experience these pulls away from the group, the group is not likely to suffer unduly if the competing obligations of its leaders are distributed randomly across the civic groups in a community. However, when the core leadership had been previously tied through shared

organizational involvements, the local SMO becomes vulnerable to the inevitable ebb and flow of competing demands from these involvements. If, for example, core leaders all worked together or were active in another voluntary association, the times of the year when those commitments demanded more attention would simultaneously affect all chapter leaders, simultaneously distracting them from their MADD tasks. Such regular cycles of temporary leadership distraction would increase the likelihood of inaction and therefore increase the likelihood of disbanding among these small, fragile SMOs. By contrast, chapters whose leaders had no prior organizational ties through common civic engagement would be less likely to have their efforts diluted in concert by competing involvements.

The Survival Advantage of Patronage Relationships

As can be seen in model 3 (Table 2), chapters that had access to patronage at founding were 2.69 times more likely to survive than those that did not. However, those groups that received no revenue from members were no more likely to have gone out of existence than those chapters that reported having received virtually all of their financial resources from members. These findings suggest that financial support beyond some very minimal level is probably only of marginal significance to many of these groups, but that larger amounts of financial resources, when they are available, are more likely to come from patrons than they are from members. We do not have adequate measures of the amount and source of financial support for these groups, but an analysis of what is available supports our interpretation of these findings. For instance, groups that received a start-up grant were subsequently more dependent on businesses for financial contributions, and they also reported greater levels of total revenue in 1985.

The Strength of Extensive Weak Ties in the Community

Our findings offer clear support for the long-standing body of work on the strength of weak ties and their ability to counter the social closure that can result from homophily. Given the haphazard nature of drunk-driving victimization, groups with a higher proportion of victim members can be expected to have access to fewer overlapping social networks and thereby extend the group's reach into a broader set of community social locations. A broader range of connections is an important form of social capital because it increases a group's potential avenues of access to resources of all kinds, from new members, to sympathetic local journalists, to potential financial supporters. A broader range of social connections and the influx of new members accompanying them offset the socially isolating effects of social homophily. The greater the social closure in an SMO's networks, the greater its difficulty in overcoming locally specific patterns of resource stratification and the more rapidly it will deplete the resources accessible through its specific social networks. The social capital of extensive weak ties promotes SMO persistence and,

as we will see below, can be altered for better or worse as a result of organizational strategy.

Because we are using the victim composition of each chapter as a proxy for the extent of members' nonoverlapping networks of weak social ties, we consider an alternative interpretation of this finding based on the emotions related to victimization. Anger, outrage, and other emotions may well motivate drunk-driving victims to higher levels of commitment and increased effort in opposing drunken driving than those of activists motivated by conscience (Jasper 1998). Thus, the increased efforts and greater commitment of victim activists might also explain the effect of our weak ties variable on persistence. Consistent with this expectation, victim presidents of these groups report spending over five hours a week more working for their groups than do nonvictim presidents. Similarly, the victim composition of MADD chapters is positively correlated with the amount of volunteer labor mobilized by the chapters. Nevertheless, we did not find that the amount of effort expended by group presidents, whether victims or nonvictims, had an independent impact on the chances of group survival. Moreover, the amount of volunteer labor is not associated with chapter survival in the multivariate analyses, as indicated in Table 2.

The emotions related to anti-drunken-driving activism are more complex than suggested by simply expecting victim activists to be angrier and more dedicated than nonvictim activists. First, many drunken-driving victims were outraged and channeled their anger into the varied activities of local MADD groups. Yet victims were also highly likely to experience feelings of grief, loss, disorientation, and even depression (Lightner & Hathaway 1990). They were also more likely to be caring for injured family members, settling estates, and preoccupied by a number of related obligations. Each of these commitments could be expected to undermine individuals' capacity to participate actively in MADD activities regardless of their motivation, as suggested in the postpartum and breast cancer support movements (Van Willigen & Taylor 1996). In this context it is worth emphasizing that the typical MADD chapter was neither led by victims nor composed primarily of victims. Rather, drunken-driving crashes and their associated injuries and fatalities affected many who had not been directly victimized in several ways, including causing them to feel angry, outraged, and fearful that it could happen to them or their loved ones. Such emotions clearly motivated activism among those not directly victimized by drunken driving, yet without the potentially debilitating grief and countervailing responsibilities experienced by victims.

Finally, MADD chapters with a high proportion of victim members were more likely to emphasize providing victim services than groups with fewer victim members ($r = .18, p \leq .01$), thereby making them more vulnerable to the related risks of social closure. Yet the negative effects for survival of the strongest emphasis on victim services are countervailed by our strength of weak ties interpretation of member victimization. Among the 13 chapters that had both the highest level of

victim service emphasis and the highest level of victim membership, 12 survived. While the emotions of victimization may well lead to a greater emphasis on victim assistance, any liability from that choice seems to be offset by the strength of weak ties. Table 2 provides some support for this last line of argumentation, as the positive effect of weak ties on persistence becomes more pronounced after the effects of victim aid emphasis are added to model 2. Our data do not allow us to disentangle fully these interpretations empirically, though we judge the available evidence to favor our initial strength of weak ties interpretation over one rooted in the emotions of protest.

ORGANIZATIONAL STRATEGY

Next we consider the two measures of SMO strategic choice that are stepped into the analysis in model 2. The inclusion of these two measures improves the fit of model 2 significantly over that of model 1. As can be seen in Table 1, MADD chapters varied widely in their propensity to focus on victim aid. In model 2 we see that the choice to emphasize victim aid decreased a chapter's likelihood of persistence by a factor of .78 for each unit increase in this scale. Compared to chapters with no victim emphasis (0), those with the strongest emphasis (6) were less likely to persist by a factor of .23. In other words, they were about 4.3 times more likely to disband over the three-year period than groups placing no emphasis on victim aid.

By contrast, the utilization of social networks for membership recruitment increased the odds of persistence of a group by a factor of 1.66 for each unit increase in this trichotomy. Thus, chapters that had recruited "most" (2) of their recent members through social networks were 2.76 times (1.66×1.66) more likely to persist than groups that had recruited "none or a few" of their members through social networks. Adding these two indicators of organizational strategy to model 2 does not change substantially the results of the impact of the indicators of social capital.

Network Recruitment of New Members

Recruiting new members along kin and friendship lines enhances the chances of a group's survival according to our analyses. Groups that recruited "most" of their members through these avenues were 1.66 times more likely to survive than those that recruited "some" that way and 2.76 times (1.66×1.66) more likely than those that recruited "none or a few." Past research (e.g., Snow, Zurcher & Eckland-Olson 1980) has shown the importance of this avenue of recruiting for the mobilization of membership, and our findings suggest, further, that this effective strategy of organizational building has the added effect of sustaining a group early in its existence. The finding is inconsistent with the theoretical expectation of a negative effect of social homogeneity on SMO persistence that results from reliance on close

personal ties in recruiting. One reason may well be that, while only one in ten MADD chapters were composed of a majority of victims, most chapters had sizable minorities of victim members. Given the haphazardness of drunk-driving victimization, even relatively small proportions of victims may have represented a sufficiently heterogeneous base for network recruitment to sustain these small local groups.

In addition, constituting elements of a consensus movement (McCarthy & Wolfson 1992) with widespread recognition, legitimacy, and support, local MADD chapters can be expected to be less vulnerable to the negative centripetal effects of social homophily than local social movement groups with oppositional goals. During the middle to late 1980s, the efforts by MADD's national office and various institutional promoters had succeeded in creating nationwide name recognition for MADD, and the broad contours of its collective-action frame were understood by many, if not most, Americans (McCarthy 1994). Thus, local media coverage of chapter activities could be sufficient to attract new recruits from outside the social networks already represented by group leaders or members. MADD chapters could actively recruit new members from among the family and friendship networks of their existing members without the serious risk of social closure faced by more oppositional SMOs, because the broad resonance of their collective-action frame assured a sufficient infusion of new members with nonredundant social networks. The leadership of SMOs not benefiting from these kinds of cultural resources would have to draw in new members from outside existing social networks as a matter of consciously planned strategy, and the members would have to overcome disagreement on issues and often active resistance to recruitment from their family and close acquaintances.

Specializing in Victim Assistance

Recall that we conceived a group's relative emphasis on aiding victims of drunken driving as a key attribute enhancing the legitimacy accorded a chapter by external actors. Such legitimacy would in turn be expected to facilitate resource acquisition and thereby enhance the likelihood of persistence. This neoinstitutional expectation is not supported by our results, so we seek an interpretation of this finding in other mechanisms.

Victim assistance as practiced in the anti-drunken-driving movement was both highly labor intensive and socially isolating. Surviving victims are incredibly needy early in the process of confronting their loss, and responding to those needs can be time-consuming and emotionally draining (Lightner & Hathaway 1990). Many chapter leaders reported that they could have spent much of their little remaining free time working with victim families had they not resisted doing so. Thus, a heavy focus on victim assistance can be expected to be isolating because the explicit focus on personal tragedies raises the emotional stakes of group involvement, accentuates

status distinctions between victims and nonvictims within groups, and makes burnout more likely for members not equipped, or not willing, to deal with it on an ongoing basis (Kayal 1991). Moreover, a heavy emphasis on victim assistance may well monopolize group efforts, leaving far less time available for pursuit of other activities that would expand the social reach of the group, such as seeking new members or undertaking public awareness activities.

The Contingent Liability of Emphasizing Victim Assistance

To assess the contingent impact of victim aid on group persistence, we fit an interaction between victim aid emphasis and strong leadership ties through friends and family in model 3. The results of this interaction effect are summarized in Table 3. There we see that the effect of strong leadership ties varies according to the degree of emphasis a group placed on victim aid activities. MADD chapters with strong leadership ties among family and friends were 26.45 times more likely to persist than those lacking strong leadership ties when victim aid emphasis was 0. As victim aid emphasis increases, the likelihood of persistence decreases markedly. Chapters with strong leadership ties and the greatest emphasis on victim aid activities were about one-fifth (.19) as likely to persist (or about 5 times more likely to disband) as were groups lacking strong leadership ties but with an equally strong emphasis on victim aid. Recall that the mean victim aid emphasis in our sample is between 3 and 4 on our scale. So for MADD chapters that placed a typical emphasis on victim aid, the effect of strong leadership ties ranges from no appreciable effect (.99 for 4's) to a modestly positive effect (2.25 for 3's).

We draw three conclusions from the patterns of results evident in model 3. First, our findings give us no reason to doubt that close prior ties among SMO leaders lower the opportunity costs of group formation by facilitating the establishment of working relationships, communication, and decision making. However, the value of such ties for the persistence of small local SMOs is heavily contingent, in this case, on strategic choices made by those leaders. Our results offer further evidence that strategic decisions can alter the structure of a group's internal and external relations in ways that promote social closure and undermine subsequent access to key resources. Second, once we have disentangled the effects of strong leadership ties from those of victim aid emphasis, our results are consistent with Olemacher's (1996) argument that strong ties among SMO leaders will benefit the organization if they are complemented by wide-ranging weak ties among SMO members. Third, in the interaction model the direct effect of victim aid emphasis was no longer significantly related to chapter persistence. Apparently, the negative effects of victim aid activities are contingent on the presence of strong ties among leaders, and even then they only manifest themselves when chapters place great emphasis on victim assistance.

TABLE 3: Strategic Choice and SMO Persistence

Victim Aid Emphasis	Effect of Preexisting Strong Leadership Ties among Family and Friends on the Odds of Persistence
0	26.45
1	11.64
2	5.12
3	2.25
4	.99
5	.44
6	.19

CONTROL VARIABLES

Among the control variables, total revenue and amount of media coverage had strong positive effects on local SMO persistence in model 3. The odds of surviving increased by a factor of 1.82 for each upward increment in the three-category measure of revenue. The largest local groups with budgets over \$6,000 in 1985 were 3.31 (1.82×1.82) times more likely to persist than the smallest groups with budgets under \$1,000. Similarly, MADD chapters that garnered moderate to high levels of media coverage of their activities were 2.97 times more likely to persist than groups with little or no coverage.

We were surprised that the strong positive bivariate relationship between membership size and survival did not hold up in the subsequent multivariate analyses, especially among SMOs as small as those included in this study. Given our arguments above, the size of MADD chapter membership should, among other things, exert a strong influence over how extensively the network ties of members penetrate the community, especially for groups that emphasize network recruitment. Because of this and the long-standing debate among social movement analysts over the relative importance of financial and human resources for the effectiveness of SMOs, we explored more fully the effects of membership size and its relationship to the network recruitment strategy (see Oliver & Marwell 1992).

Several factors could account for the nonsignificance of membership size and total revenue in model 1. First, since members often contribute financial resources to organizations through dues or donations, membership size and budget size are often strongly intercorrelated.¹² In these data, total revenue and membership size exhibit a strong correlation ($r = .63, p \leq .01$). When model 2 is run without total revenue, the effect of membership size becomes significant ($2.30, p \leq .05$). Similarly, when membership size is dropped, the effect of total revenue becomes significant ($2.02, p \leq .04$). Second, both total revenue and membership size may have indirect effects on chapter persistence through the effect of media coverage. Local SMOs with greater human and financial resources could be expected to obtain greater

media coverage and thereby be more likely to persist. In model 1, media coverage may have a suppressor effect on both total revenue and membership. We confirmed this in separate analyses (not presented) by removing media coverage from model 1. Without media coverage in model 1, total revenue (1.81, $p \leq .08$) and membership size (2.08, $p \leq .08$) were significant positive predictors of SMO survival.¹³

Because the reach of member networks in the community should be strongly influenced by membership size, we examine a third possibility for the nonsignificance of membership size in model 2 of Table 2. To do this we fit an interaction between membership size and utilization of social networks for membership recruitment and added it to model 2. The results for the interaction effect are summarized in Table 4.¹⁴ From Table 4, we see that the advantages of networked recruitment are concentrated in the smallest chapters' odds of persistence, and, in fact, such recruitment is counterproductive for larger chapters. Furthermore, the effects for the smallest chapters are dramatic. A one-unit increase in networked recruitment raises the odds of survival almost fivefold, and small groups that recruited most of their members this way were more than 23.72 times more likely to survive than those that recruited none or a few of their members through social networks.

Among the smallest local SMOs, then, the networked recruitment of members confers greater survival advantages than do the number of members, member volunteer labor, or the rather limited financial resources mobilized by these groups, while money benefits persistence only when controlling for the effects of organizational strategy (model 2). This survival advantage of human over financial resources is most pronounced among the smallest of the local SMOs examined. We interpret this pattern of results as indicating that the larger groups had already recruited many of their members through social networks and, as a consequence, their reserves of social capital indicated by social ties through kinship and friendship had already been partially depleted. To the extent that large groups continued to pursue this form of recruitment, they were engaging in a low-yield strategy, one that could be expected to draw group effort away from more productive ones.

Conclusion

Our findings pertain to small local SMOs during the early years of their existence (none of the surviving MADD chapters we studied was more than ten years old in 1988). Yet the findings have important implications for how the strategic decisions of SMO leaders and their access to resources through social networks affect the likelihood of survival for groups such as these.

Groups with initial access to patronage are more likely to survive than those without it, as are groups with a greater stock of weak ties in their community by virtue of having large proportions of victim members. These findings are consistent with our original theoretical expectations. They continue the important founding

TABLE 4: Social Capital Depletion and SMO Persistence

	Effect of Increase in Networked Recruitment on the Odds of Persistence	
	One-Unit Increase ^a	Two-Unit Increase ^b
Small SMOs (fewer than 20 members)	4.87	23.72
Medium SMOs (20-99 members)	1.62	2.62
Large SMOs (100+ members)	.54	.29

^a Effect of “some” compared to “none/few” or “most” compared to “some”
^b Effect of “most” compared to “none/few”

advantages that access to patronage and extensive weak ties provide to fledgling SMOs by facilitating their persistence.

In contrast, an SMO that emerged out of a preexisting group, having accessed that group’s stock of social capital and other resources, is less likely to survive. The same pattern is seen in groups where there were weak social ties among leaders as a result of joint external civic engagement. This pattern of findings, if general, has wide implications. It suggests that the “short-cut” provided by this particular form of “bloc recruitment” (Oberschall 1973) may yield only short-term advantages, since tying an SMO so closely to another organization may provide unreliable longer-term sustenance. We are unaware of any systematic quantitative research that examines the longer-term survival of similar small local SMOs, such as civil rights groups that built on African-American congregations or pro-life groups that emerged out of Catholic parishes. Consequently, our findings offer the first cautionary note about this form of bloc recruiting. Activist entrepreneurs may make more or less examined decisions about whether to start from scratch or to co-opt the social and material resources of an existing organization. These findings suggest that they should think twice about such a decision and consider carefully the need for short-term or sustained collective action.

We also find that strategic choice has strong effects on SMO persistence, even with powerful measures of network and organizational structure that facilitate persistence included in the models. Local anti-drunken-driving groups were more likely to persist when they relied on personal social networks to recruit new members and deemphasized victim assistance activities. Yet the latter turned out to be a highly contingent advantage. If survival liabilities of social homogeneity result from building local SMOs on the foundation of strong social ties, we have uncovered here only a limiting case of such an effect. The liability in such cases is linked to strong preexisting ties among group leaders who then make a strategic choice to heavily emphasize working with, by necessity, a small number of drunk-driving crash victims. We have interpreted that strategic choice as having socially isolating and emotionally draining consequences. Among groups that downplay victim aid, and thereby place a greater emphasis on other activities, strong

preexisting leadership ties confer the expected survival advantages, and those advantages are substantial. Similarly, recruiting a higher proportion of new members through preexisting family and friendship networks also confers survival advantages. Yet this advantage is contingent upon group size, and what is a substantial asset for the smallest of these local SMOs turns out to be a notable liability for the largest groups (100 or more members).

The citizens' movement against drunken driving is a consensus movement with strong institutional facilitation of its efforts, widespread public support for its goals, generalized familiarity with its collective-action frame, and no countermovement contesting its claims (McCarthy & Wolfson 1992). The implications of our findings for their more oppositional or controversial counterparts may be different. For example, for consensus movement SMOs, consistent media coverage provides an undifferentiated benefit by getting the word out to a broad cross-section of sympathetic but otherwise disconnected people. Thus, among consensus movements, media coverage may offset the centripetal effects of social homophily. By contrast, for radical groups pressing controversial goals, media coverage can be a mixed blessing, as increased media coverage typically leads to greater awareness of the group among a broad cross-section of unsympathetic individuals. Such individuals may well pressure those in their social networks to cease supporting or participating in an oppositional SMO, thereby raising the stakes of open involvement. In addition, SMOs advocating controversial goals may need to devote more effort to public awareness and membership recruitment than SMOs pursuing consensus goals. Thus, forging more extensive weak ties and pursuing networked recruitment strategies may be even more consequential, if tricky, choices for controversial SMOs than our analysis has shown them to be among local MADD chapters.

Finally, the resource mobilization perspective has been criticized for overemphasizing material resources (Oliver & Marwell 1992). The evidence we have presented here suggests some support for the main lines of those critiques for these small local SMOs. For them, the networked recruitment of members conferred greater survival advantages than did the rather limited financial resources mobilized by these groups. This survival advantage of human over financial resources is most pronounced among the smallest of the local SMOs examined.

Implicit in the resource mobilization framework is the assumption that within a given society all resources are unevenly distributed and differentially accessible and that their "use-value" is context-dependent, varying from one sociopolitical context to the next (Edwards & McCarthy 2004). Thus, gaining access to diverse resources is a core problematic for local groups, and social capital (i.e., networked access to resources) is a key factor in accounting for variability in such access. Our analyses make clear that access can be manipulated and shaped as a matter of conscious strategy. Social capital is, as Diani (1997) has argued, an important outcome of social movements and not simply a precondition for their mobilization. Group leaders can pursue strategies to increase reserves of social capital by

expanding the range of social networks spanned by group members, but sometimes those strategic choices have socially isolating effects. We find two instances where strategic decisions shaped the network structure and trajectory of local SMOs. The decision to focus on the problems of a few individuals rather than to seek to mobilize wide segments of local communities eroded the durability of local SMOs that had been formed on the basis of strong preexisting leadership ties, and groups that pursued networked recruitment strategies were generally much more robust than those that did not.

Notes

1. Local MADD chapters were a bit bigger and better resourced than the unaffiliated groups and those affiliated with RID. Yet those differences were not significant in 1985, and few differences existed between MADD and RID in what the local groups did to further their goals (McCarthy & Wolfson 1996). Public education was an extremely important goal. Typically, group officers and, to a lesser extent, volunteers engaged in extensive public speaking, worked to obtain media coverage, distributed literature in public places, and published newsletters. Counseling and other direct services to victims, persons who had been directly involved in an alcohol-related crash or who had a close relative involved in such an event, were also commonly emphasized by local groups. Finally, some of the groups pursued changes in state legislation, stricter sentencing, and other policy goals, but for MADD this work was more likely to be done by state coordinators appointed by its national office rather than by local group leaders (Wolfson 1995).
2. Despite this diffusion of MADD chapters, the kinds of density-dependent effects of crowding emphasized by organizational ecology are unlikely to explain patterns of mortality among MADD chapters. Only two counties nationwide had more than one MADD chapter in 1985, and all of them remained active throughout the period examined here.
3. Compared to local peace movement organizations in 1988, MADD chapters generally had smaller budgets and fewer members (cf. Edwards & Foley 2003).
4. This conceptualization of social capital follows that of Foley, Edwards, and Diani (2001) and is compatible with the network analytic, relational formulation of Lin (2001).
5. See, for example, Bourdieu (1986), Coleman (1988), and Lin (2001). For a review and critique of recent empirical work, see Foley and Edwards (1999).
6. Marwell and Oliver (1993) have formally demonstrated similar negative effects on mobilization of high levels of homogeneous preexisting social ties among members of collective-action groups.
7. Of the 290 respondents, 36 completed an abbreviated (two-page) version of the survey that had been sent out to groups that were slow to respond. Questions from which measures of social capital used here were constructed were not included on the abbreviated survey. Thus, a total of 254 MADD chapters completed the longer survey and are included here, for an adjusted response rate of 67%. Rates of chapter mortality

- over the period examined were not significantly different for the 254 groups retained for analysis and the 36 groups with missing data.
8. The mortality rate of 7% per year among local MADD chapters for our study period is somewhat lower than the 8.5% annual mortality rate of small local peace groups during a four-year period from 1988 to 1992 (Edwards & Marullo 1995).
 9. Prior research has demonstrated that SMO survival is an important movement outcome and either an indicator of success or a necessary condition for it (Andrews 1997; Edwards & Marullo 1995; Gamson 1990; Minkoff 1993; Taylor 1989). Since the emergence of the movement against drunken driving, many legislative and legal reforms have been implemented nationwide (Weed 1995), yet the rate of drunk-driving crashes, injuries, and fatalities remains high. We think it is implausible that local MADD chapters would have disbanded during the three-year period examined here because they had successfully exhausted the needs of drunk-driving victims in their communities.
 10. An estimate of the prevalence of surviving family members who believed in 1988 that they were a victim of "alcohol-related vehicular homicide" puts the number of immediate family members (e.g., father, mother, son, daughter) at 2.2 million people, the number of other relatives at 4 million, and the number of close friends at 3.6 million people (Kilpatrick et al. 1990), totaling roughly 4% of the national population at the time.
 11. The odds ratios presented here can also be expressed inversely. For example, by taking the inverse of the odds of SMO persistence when chapter leaders shared weak preexisting ties (1/.27), one gets 3.70, which are the odds of disbanding. We will use this inverse format on occasion throughout this discussion where doing so facilitates a clearer interpretation of specific coefficients.
 12. The variable measuring amount of revenue from members was added to the model to help sort out this issue. If it is removed from model 2, neither membership size nor total revenue significantly predicts survival, though both are in the direction of a positive effect.
 13. We also used the variables in model 1 to predict amount of media coverage and found that total revenue and membership size were the only two significant predictors. Both the effects and predictors of media coverage merit closer attention in subsequent research.
 14. Adding this interaction term to model 2 of Table 2 significantly ($p \leq .05$) improved the fit of the model to the data and did not alter the direction or significance of any measures of social capital, chapter structure, context, or victim aid emphasis. However, results for membership, network recruitment, and revenue were substantially different. In the interaction model summarized in Table 4, the exponentiated coefficients or odds ratios for these variables were as follows: membership size, 9.32 ($p \leq .01$); prior network recruitment, 4.87 ($p \leq .01$); interaction (membership*networked recruitment), .33 ($p \leq .05$). Moreover, the coefficient for revenue size in this interaction model was nonsignificant.

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Published bimonthly
by the University of
Chicago Press

ISSN: 0002-9602

American Journal of Sociology

Editor
Andrew Abbott

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Corn, Klansmen, and Coolidge: Structure and Framing in Social Movements*

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Abstract

This article examines how structural conditions and social movement frames interact to influence mobilization and political consequences of social movements. Mobilization efforts benefit when movement framing is congruent with local structural conditions. This mobilization, in turn, produces political leverage for the movement through its capacity to deliver support of its members and adherents. Its political advantage may be offset, however, if another of its key framing activities, the construction of collective identity boundaries, alienates the broader population and stimulates a backlash. Such backlash is also intimately connected to structural conditions because its potential is a function of the characteristics of the local population — specifically, the proportion of the population alienated by the movement's boundary construction. We apply these arguments to the case of the Indiana Ku Klux Klan in the 1920s and show that while the Klan's diagnostic and prognostic framing may have resonated structurally and facilitated the Klan's mobilization efforts, its exclusionary boundaries frustrated its attempts to secure broader political gains.

Historians estimate that from 1915 to 1925 between three and five million American men and women joined the Ku Klux Klan (Blee 1991:30; Jackson 1967:15, 237; MacLean 1994:10). The Klan's greatest stronghold was the state of Indiana where as many as 250,000 men were members of the organization when it reached its peak in 1924 (Moore 1991:6-7, 48-49) and a comparable number of women joined the Women's Ku Klux Klan (Blee 1991:195-97). The Indiana Klan

* We are grateful to anonymous reviewers, Peter Bearman, François Nielsen, Tony Oberschall, Mike Savage, Kathleen Schwartzman, Mim Thomas, and members of the Notre Dame Working Group on Politics and Movements for valuable comments and suggestions. Direct correspondence to Rory McVeigh, 810 Flanner Hall, Department of Sociology, University of Notre Dame, Notre Dame, IN 46556. E-mail: rmcveigh@nd.edu.

promoted white supremacy and was antagonistic toward Catholics and immigrants. Klan leaders, however, also identified with the progressive movement of the time. They expressed admiration for legislators such as Wisconsin's Robert LaFollette and Montana's Burton Wheeler who, like the Klansmen, railed against the power of big business and tariffs that protected industry at the expense of farmers and middle-class consumers.

In the Indiana Klan's weekly newspaper, the *Fiery Cross*, Klan leaders charged mainstream Democrats and Republicans with abandoning progressive principles and characterized President Warren Harding as a stand-pat Republican who was captive to the interests of Wall Street and Rome (*Fiery Cross*, April 27, 1923). Yet when election time came in 1924, the Indiana Klan ended up bitterly opposing LaFollette's presidential bid and instead supporting Republican Calvin Coolidge, a candidate who had little interest in advancing the Klan's economic agenda. How could this seemingly paradoxical outcome occur? How could a social movement end up working for a political outcome that contradicted its grievances? The answer comes from carefully considering the interplay of social structure and ideological framing processes as movements attempt to recruit members, build a strong organizational base, and influence political outcomes.

Social structure played a central role in early theories of collective action, such as collective behavior theory (Smelser 1962), and mass society theory (Arendt 1951; Kornhauser 1959). These approaches have been abandoned, however, being criticized for portraying protest participants, either explicitly or implicitly, as being irrational and disconnected from social bonds. Due, in part, to the negative response to earlier structural theories of collective action, movement researchers began to focus on questions about *how* protest emerges rather than *why* protest emerges (Klandermans 1997:203-204).¹ Instead of examining how changes in structural conditions generate discontent, researchers focus on how discontented people band together to bring about social change by exploiting new political opportunities (Jenkins 1985; McAdam 1982; Tarrow 1994), the availability of new organizational resources (McCarthy & Zald 1973; Oberschall 1973), and by constructing interpretations of existing circumstances that inspire collective action (Snow et al. 1986).

Recently, some analysts have begun to redirect attention to the role that social structure plays in social movement activism. Like other contemporary research, this work recognizes that participants in movements as ideologically distant as the civil rights movement (McAdam 1982; Morris 1984) and the Ku Klux Klan (Blee 1991) tend to be neither atomized nor irrational. For example, Jenkins, Jacobs, and Agnone (2003) show that measures of structurally induced grievances can be used to predict the timing of civil rights protest events. Recent work by McVeigh (1999) and by VanDyke and Soule (2002) indicates that structural changes can lead to new grievances, providing individuals with a rational incentive to participate in collective action. This research draws attention to how structural changes can generate incentives to engage in collective action (the "why" question). Our analysis

of the Ku Klux Klan reveals a complex link between the why and the how of collective protest. Structural conditions are associated not only with varying levels of discontent in society, but also work together with collective action framing processes to shape both the trajectory and outcomes of social movements.

By collective action frames, we are referring to “action oriented sets of beliefs and meanings that inspire or legitimate social movement activities and campaigns” (Gamson 1992:7; Snow & Benford 1992). A movement may construct a collective action frame that does well attracting members in one structural context, but fails to mobilize in another. That same frame can also align or alienate the general public and its representatives, depending upon the patterns of structural differentiation in the broader arena of conflict. Candidates for public office, for example, may reject a movement after calculating that its support would be more than offset by a broader backlash against the movement. Ideally, a social movement can develop a frame that recruits active members and builds solidarity among them without generating a significant backlash in the wider population or estranging political leadership outside the movement — but this is not always easy to do. In fact, the difficulty of solving this set of framing dilemmas, as we will demonstrate, proved to be an insurmountable obstacle in the Indiana Klan’s attempt to affect social change through the electoral process.

The response to a movement’s framing is also affected by spatial proximity. Social movement framing is an ongoing process (Benford 1997; Snow & Benford 2000), as movement leaders and members continuously revise and modify frames, attempting to find new ways to connect with potential supporters and to reach new audiences. As a movement attempts to extend its influence across many communities, intimate knowledge of the values and concerns held by potential supporters in those communities can be extraordinarily valuable. Local concerns can be incorporated into the movement’s framing, providing additional incentives for individuals to join the organization. Movement organizers are likely to be familiar with concerns held by potential recruits in neighboring communities, but familiarity diminishes as the movement attempts to expand into more distant communities.

Though it is not possible to completely reconstruct the collective action frames used by Klan leaders in the 1920s, the *Fierly Cross*, which was widely distributed in the state of Indiana, elucidates the key themes that were addressed in the movement’s framing. Our analysis shows that progressive economic frames served the Klan well in Indiana. Counties whose populations stood to benefit most from the economic programs advocated by the Klan were particularly likely to provide members for the organization. In addition, we show that the Klan enjoyed greater recruiting success in counties that were spatially proximate to the movement’s strongholds. Yet the collective identity frame developed by the movement ended up interfering with the Klan’s economic agenda. The ethnic and religious

boundaries constructed by the Klan fundamentally altered the role it played in the 1924 presidential race.

Framing, Social Structure, and Boundary Construction

In order to attract adherents and participants, movement leaders must engage in framing processes (Gamson 1992; Snow et al. 1986). Framing involves interpreting and representing existing social conditions in a way that convinces potential recruits that social change is desirable (diagnostic framing), that it is possible (prognostic framing), and that their participation is required to produce the desired change (motivational framing) (Gamson 1992; Klandermans 1997; Snow & Benford 1988; Wilson 1973). As Buechler (2000:41) describes it, the combination of diagnostic, prognostic, and motivational framing “translates vaguely felt dissatisfaction into well-defined grievances and compels people to join the movement to do something about it.”

Cress and Snow (2000) recently argued that framing tasks are relevant not only to recruitment but also to determining movement outcomes. Without a coherent frame that specifies the problem, identifies culpable agents, and offers a specific remedy for the problem, a movement is unlikely to succeed. We build on prior framing work by considering the relationship between movement framing and its structural context. Of course, the most effective frames are usually those that resonate with the life experiences of those targeted for recruitment (Babb 1996; Snow & Benford 1988). In particular, the diagnosis of the problem must be consistent with what the targets of recruitment perceive in their immediate surroundings. We focus attention, therefore, on how the effectiveness of a movement’s framing will vary depending upon the structural context.

A second key element in our approach to framing effectiveness concerns boundary construction. As Gamson (1992) notes, collective action frames are adversarial by nature and the diagnostic process typically involves constructing boundaries about who is “us” and who is “them” — that is, who will be the beneficiaries of the movement’s efforts and who will pay for it. Environmental protection, for example, comes at the expense of those who profit from polluting the environment. Diagnosis and prognosis that fails to identify adversaries may provoke little resistance from bystanders but will also have trouble inspiring contributions — if leaders obscure the nature of the conflict, supporters may have trouble seeing how their participation will be worth the effort (Cress & Snow 2000; Przeworski 1985). One way of constructing and reinforcing collective identity boundaries is to emphasize the characteristics, traditions, and cultural values that distinguish supporters from others (Fireman & Gamson 1979; Gamson 1992; Snow et al. 1986). This fundamental mobilization process can end up generating resentment among those in the general public who fall outside of

the movement's constructed boundaries: Framing that effectively promotes solidarity within the movement often generates opposition among those outside of the movement who might otherwise have been indifferent.

Movement organizers, therefore, face a balancing act. They can attempt to expand broad support by being less exclusionary and adversarial, but they do so at the risk of losing their core constituency. As movement leaders attempt to extend the base of support by appealing to a wider range of interests or by watering down their goals, core supporters may defect, sensing that the movement is no longer "theirs" and that it is no longer concerned with winning concrete benefits on their behalf. This tension between organizing a social movement and influencing the broader political process is a long-standing problem for movement leaders, as illustrated in particular by Przworski's (1985) treatment of labor movement efforts to expand its base of political support in modern democratic nations (see also Fishman 1990; Oestreicher 1995; Redding 1992).

These two fundamental factors work together to determine the effectiveness of a collective action frame in a particular context. As summarized in Table 1, diagnostic, prognostic, and motivational framing attempts exhibit varying degrees of resonance with the structural environment. Because few individuals are willing to bear the costs of collective action in communities where people do not suffer from the problems diagnosed by the movement, the movement will find attracting members difficult. Second, the response to the movement from nonmembers within the broader population will be shaped, to a great extent, by the proportion of people in the community who are alienated by the movement's boundary construction. Individuals who sense that the movement's successes will come at their expense or who resent exclusion by the movement's motivational framing have incentive to oppose the movement. In democratic societies, support from political leaders often follows the reaction to boundary construction because alignment with a movement implies agreement with its constructed boundaries.

When structural congruence with movement-proffered frames is high and few individuals are excluded by movement-constructed boundaries, movements can expect a high degree of cooperation in a condition we call facilitative. In contrast, there may exist environments where structural congruence is low and high proportions of the population are excluded by the movement's boundary construction. In this case, the movement is obstructed because the membership will be small and the oppositional backlash will be strong. The adversarial condition pits a strong movement membership against strong political opposition in the larger public community. Finally, if structural congruence is low but boundary overlap is high, the movement exists in a condition we call benign: The movement encounters little resistance but fails to make progress because it does not have a critical mass willing to pay the collective action costs.

As we will show in what follows, the Klan of the 1920s was successful in connecting structural conditions to its frames and thereby generated a strong

TABLE 1: Structure, Boundaries, Membership, and Political Support

Structural Congruence		Boundary Overlap	
		Low: Political Opposition	High: Political Support
	Low: Weak Membership	Obstructed	Benign
	High: Strong Membership	Adversarial	Facilitative

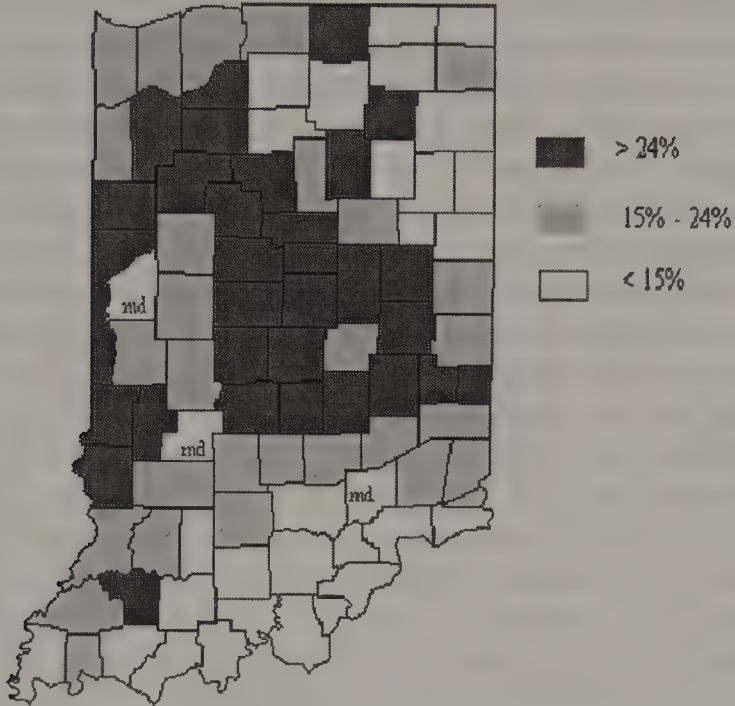
membership and movement organization in the state of Indiana. The Klan leaders’ diagnostic framing, in particular the framing of economic conditions, resonated strongly in many Indiana counties. The movement also successfully incorporated race, religion, and nativity into its diagnostic framing. By constructing the boundaries of their organization along racial, ethnic, and religious lines, Klansmen capitalized on long-standing prejudices held by many of Indiana’s native-born, white Protestants. In the process, however, they provoked resistance in political communities both inside and out of Indiana, which would become particularly problematic when they tried to influence the national election of 1924.

THE RESPONSE OF POLITICAL LEADERS

How framing efforts and boundary construction produce political support is not merely a function of movement effort. In addition, those on the receiving end of movement messages are making their own calculations about the consequences of supporting the movement (Amenta, Bernstein & Dunleavy 1994). Elected political officials, in particular, face an important decision when deciding whether to align themselves with a movement. If all of a politician’s constituents came from “facilitative” contexts (Table 1), her or his decision about endorsing the movement would be an easy one since the movement is strong and the population is supportive. A candidate would benefit from the votes that the movement could deliver from its membership along with votes gained from sympathetic nonmembers. The choice would be equally straightforward if all communities fell into the “obstructed” category. In this context, there is a strong incentive to ignore or even attack the movement. The movement could not deliver enough votes to offset the negative reaction in the broader population.

A politician’s optimal response to movement activity is rarely this simple. Structural and population characteristics vary across locale within the politician’s constituent political arena and communities can only rarely be categorized as extreme cases of the facilitative or obstructed cells. Political representatives must calculate projected gains and losses across a range of districts or communities — some where a movement is strong and some where it is weak; some where the movement enjoys broad support among the general public and some where

FIGURE 1: Klan Members in 1925 as a Percent of Adult White Native-born Males in 1920. Indiana Counties (md = missing data).



opposition is intense. The impact of aligning with or endorsing a movement will therefore depend on the relationship between the movement's framing and patterns of structural differentiation within the arena of political contention. The decisions made by the candidates in the 1924 presidential election in response to the relationships between the Klan's framing and their support bases proved to be a critical element in the trajectory of the movement.

The Ku Klux Klan in Indiana

The Ku Klux Klan established its first Indiana chapter during 1921 in Evansville, near the southwest corner of the state. Under the direction of D.C. Stephenson, the "Grand Dragon" of Indiana, the movement quickly spread. In 1922, Stephenson moved his headquarters to Indianapolis and by 1924 the organization had established chapters in all 92 of Indiana's counties. In 1925, Harold Feightner, a correspondent for *The New York Times*, obtained Klan documents that contained the names of local Klan leaders along with the number of members in 89 of Indiana's 92 counties (Moore 1991). In total, there were 165,641 Indiana Klansmen in 1925, or roughly 20% of the adult male population (see Greenapple 1989; Moore 1991).² As is apparent in Figure 1, not all Indiana communities embraced the Klan equally. Klan organizational strength

displayed in the figure is calculated as the number of Klan members in the county as a percent of White, native-born, adult males (1920 U.S. Census). The measure ranges from a low of 0.7% in Harrison County to a high of 37.7% in White County.³

Why did the Klan become so popular so quickly and what controlled the differential spread of the movement in Indiana? These questions have been puzzling to historians and sociologists alike. Indeed, scholars do not agree upon the very nature of the Klan, much less its causes. Some have emphasized the reactionary, racist, and provincial aspects of the organization (Bennett 1988; Chalmers 1987; Hofstadter 1955; Lipset & Raab 1978; Mecklin 1924; Wade 1987;). Others, however, have noted the ways in which the movement combined racism and bigotry with other goals that were shared by the progressive movement and by the populist movement (Blee 1991; Goldberg 1981; Horowitz 1999; MacLean 1994; McVeigh 1999; Moore 1991).

Distinctions made between the reactionary elements of the Klan and its ties to the progressive movement are based on something of a false dichotomy. The progressive movement of the early twentieth century was characterized by a mixture of coercive moralism and concerns about social justice (Link & McCormick 1983). Indeed, many progressives felt that enacting desired social reforms required coercing the behavior of individuals who did not share their ideals and limiting or excluding the political participation of African Americans, Catholics, and immigrants. This view was given a boost by the nation's experiences in World War I, as the war contributed to a strong surge in nativist sentiment in the broader population. While many Americans abandoned progressivism altogether after the war (Hofstadter 1963), others embraced the more coercive strains of progressivism. That is, they came to believe that it would be necessary to purge the nation of all foreign influences in order to enact progressive reforms (Link & McCormick 1983). It is this brand of progressivism that Klan leaders packaged and sold in the early 1920s.

Economic Framing and Structural Context

In the pages of the *Fiery Cross*, Klan leaders claimed that both of the major political parties had been captured by foes of progressive reform in the 1920 presidential elections (*Fiery Cross*, August 17, 1923). As they looked ahead to the 1924 elections, *The Fiery Cross* offered a state-by-state evaluation of U.S. senators, commenting on where each stood in relation to the Klan's agenda. In this evaluation, Klan leaders praised progressive legislators while making disparaging comments about regular Democrats and Republicans. Robert LaFollette, the most prominent progressive in the Senate at the time, was described as "an outstanding liberal leader." Progressive Democrat Burton Wheeler of Montana, who would be LaFollette's

running mate in the 1924 presidential race, was described admiringly as “a real independent” (*Fiery Cross*, December 14, 1923).

Though other scholars have noted the Klan’s link to progressivism (Horowitz 1999; Moore 1991), the economic implications of this link have not been fully appreciated. The central difference dividing insurgent Republicans and progressive Democrats from other legislators was their view on protective tariffs. After several years of relatively low tariffs, the Emergency Tariff act of 1921 and the Fordney-McCumber Tariff act of 1922 had restored the high walls of protection that prevailed under earlier Republican administrations. The Klan’s identification with the progressive movement and with progressive leaders such as LaFollette placed the Indiana Klan firmly on one side of an economic issue (the tariff) that deeply divided Americans in the early 1900s. Like LaFollette, the Klan’s leadership also condemned the tariff. Indiana’s Grand Dragon addressed the issue in the following manner:

The manipulators of our national government have seen fit to erect high walls of tariff to protect our industrial interest, which were not justified, and while they have permitted the Federal Reserve Bank to become a tool in the hands of selfish and sordid men, the great agricultural districts of America have been sorely neglected to a point where they have suffered almost beyond hope of repair. (D.C. Stephenson, *Fiery Cross*, November 9, 1923)

Though the Klan opposed agrarian radicalism, its leaders appealed to the “reasonable” discontent among farmers. In addition to condemning high tariffs, they called for expanded credit, government aid for more efficient farming techniques, lower taxes, and lower railroad rates. Like the progressives, they opposed monopolies and the concentration of industry on the grounds that these raised prices for the average consumer. Klan leaders criticized industrial capitalists for exploiting labor and putting profit ahead of the public welfare (e.g., *Fiery Cross*, September 18, 1923). At the same time, they condemned labor radicalism for promoting the selfish interests of a social class at the expense of the average citizen (MacLean 1994; McVeigh 1999).

By incorporating much of the progressives’ economic agenda into its framing, the Klan should have enjoyed recruiting success in Indiana’s underindustrialized counties, and particularly in counties where corn was the dominant crop. Many American farmers were hurt by a severe agricultural depression in the early 1920s, but there was considerable disagreement among them about how to address their problems. The tariff acts had some support among farmers in western states who had hoped that tariffs on wheat would benefit them in the same way that industrialists benefited from protection. Other farmers opposed the tariff increases, understanding the root of their trouble lay in surplus domestic agricultural production and a lack of foreign demand. In states such as Indiana, where corn was the dominant crop, farmers were particularly concerned about European buying power because they were essentially exporting their corn crop to Europe through cows and hogs. Farmers fattened livestock on their corn crops and sold

the animals and meat to foreign markets (Edminister 1926). And because the war had transformed the U.S. from a debtor to a creditor nation, the capacity of European nations to purchase American foodstuffs depended, to a great extent, on their ability to sell products to the U.S. High tariffs exacerbated the problem for those farmers who produced primarily for export — beef exports dropped nearly 66% from 1919–20 to 1920–21 and pork was hit nearly as hard dropping 44% from 1918–19 to 1920–21 (Larmer 1926).

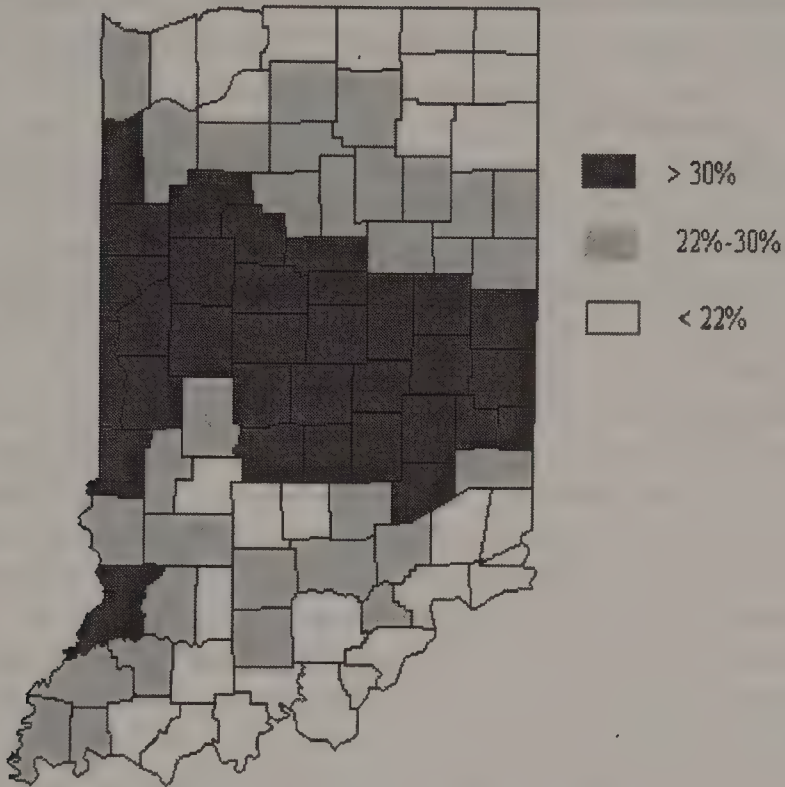
Wheat farmers, on the other hand, favored a plan in which the government would limit the supply of crops for the domestic market — to drive up domestic prices. This plan eventually crystallized in the series of McNary-Haugen bills (Benedict 1953:207–38). Corn-hog farmers who produced mainly for export markets had little to gain from these bills and middle-class citizens, who opposed high tariffs on manufactured goods, would also resent a plan that would raise domestic prices on wheat. Articles in the *Fiery Cross* expressed concern about the restoration of European postwar economies to benefit American prosperity, and the various price-fixing plans that were being considered to aid the farmer were described by the Klan as “panaceas” that were “full of flaws” (*Fiery Cross*, October 17, 1924).

The progressive economic themes included in the Klan’s framing should have resonated strongly in underindustrialized counties and in counties dependent on corn production. This message would have appealed to the middle-class within those counties, as well as to farmers. The economic fortunes of the middle-class are linked to the local economy and its dominant mode of production. The agricultural depression extended to local businesses dependent on the rural economy. The Klan appealed to middle-class residents of underindustrialized counties who resented paying higher prices for manufacturing goods to support industries located elsewhere. Because tariffs were particularly damaging to local economies where farmers produced for export, broad support for the Klan should have been especially strong in Indiana’s corn growing regions. A comparison of Klan strength (Figure 1) and corn production (Figure 2) by county confirms these suspicions. Indeed, there is a strong positive correlation between our measure of Klan strength and the percent of farm acreage that was used for corn production in 1920 ($r = .615$).

Race, Nativity, Religion, and Structural Context

While the tie between Klan membership and corn production is strong, the story is incomplete without an accounting of the reactionary components of the Klan’s framing. Indeed, Klan leaders had more to say about race, religion, and immigrants than about economic policy. In Indiana, the Klan was focused primarily on Catholics and immigrants. The pages of the *Fiery Cross* were filled with anti-Catholic rhetoric and with articles that characterized immigrants as inferior, corrupt, and

FIGURE 2: Acres of Corn as a Percent of All Improved Farm Land Acreage — Indiana Counties, 1920



mentally deficient. In comparison, African Americans received relatively little attention from the Indiana Klan (Blee 1991). The Klan clearly promoted White supremacy and some Indiana Klansmen were guilty of acts of violence and intimidation against African Americans (Jackson 1967), but the Klan leadership adopted a paternalistic stance — boasting about saving an African American man from a lynch mob (*Fiery Cross*, May 1923), claiming credit for a decline in the national lynching rate (*Fiery Cross*, July 6, 1923), and even attempting to organize a “colored” division of the Klan in Indiana (Blee 1991; Thornbrough 1961).

FRAMING IMMIGRATION

Much of the Klan’s rhetoric concerning immigrants was an effort to exploit longstanding prejudices in Indiana. Thus the Klan’s anti-immigrant bias tapped extant understandings of the social and economic realities in Indiana in an effort to mobilize members, generate solidarity within the organization, and to provide an element of the diagnostic frame the Klan used to explain Indiana’s economic conditions.

The Ku Klux Klan has steadily contended that unrestricted immigration laws will steadily lower the wage of the American worker. This fact, too, is now being realized by certain men high in union labor, to say nothing of the tens of thousands of toilers within the ranks of organized labor. (*Fiery Cross*, October 12, 1923)

In a speech delivered to coal miners, D.C. Stephenson emphasized the effect immigrants have on wages and also described the “inferiority” of the most recent wave of immigrants from southern and central Europe. These immigrants, according to Stephenson, “present a higher proportion of inborn socially inadequate qualities than do the older stock” (*Fiery Cross*, September 21, 1923). The Klan also claimed that immigration restriction would be beneficial to farmers, as immigrants would “compete with them in the production and sale of farm products, which are now so abundant as to already overstock the markets of the world” (*Fiery Cross*, March 14, 1924).

The resonance of such arguments depends, to some degree, on the presence of immigrants — without immigrant competition, the supposed threat is not apparent. In 1920, immigrants comprised more than five percent of the population in only ten of Indiana’s counties and the mean percentage of foreign-born residents among Indiana counties was only 2.7% (Department of Commerce 1920). Undoubtedly, the Klan’s negative views of immigrants were shared by many of Indiana’s native born residents, even in homogeneous counties. However, the Klan’s diagnosis of the “immigrant problem” should have resonated most strongly in counties that did have relatively high numbers of immigrants. In such counties there would be greater incentive to join the movement, rather than simply identifying with the movement’s rhetoric. This strategy would also cost the Klan little in terms of a political backlash within the state, because the number of immigrants was not large enough in any of the counties to generate significant opposition that could lead to either an obstructed or adversarial situation for the Klan. In almost all Indiana counties, political support lost by the exclusion of immigrants could be easily offset by political support gained from sympathetic nonmembers who shared the Klan’s nativistic beliefs.

FRAMING RACE

While the Klan’s claims of white supremacy appealed to Indiana residents because of long held prejudices, the Klan’s paternalistic rhetoric aimed to convince African Americans, and perhaps more so to reassure whites, that blacks and whites could peacefully coexist if blacks continued to accept a subordinate status and did not openly challenge white supremacy (Blee 1991; MacLean 1994). The *Fiery Cross*, for example, contained stories claiming that African Americans in Indiana understood and supported the goals of the Klan (e.g., *Fiery Cross* August 15, 1924, June 29, 1923). Klan leaders also attempted to gain favorable publicity by calling attention to donations the Klan had made to black churches in Indiana (Thornbrough 1961) and movement leaders claimed to support improved

education for African Americans, reasoning that “with education will come a feeling of racial confidence and knowledge of the place of the race in the world’s scheme” (*Fiery Cross*, August 1, 1924). They even attempted to forge a political alliance with African Americans through an organization called “The Ritualistic Benevolent Society for American Citizens of African Blood and Protestant Faith” (Thornbrough 1961).

By 1920 African Americans totaled only 2.8% of the population in the state of Indiana (Department of Commerce 1920), with the large majority of these concentrated in the major cities such as Indianapolis and Gary. In fact, the African American population only exceeded 5% in four of Indiana’s counties and the mean percentage of African Americans for Indiana counties was only 1.25% (Department of Commerce 1920). Nevertheless, by incorporating race into its framing, the Klan should have picked up additional recruits in the few counties that did have relatively high numbers of African Americans. Certainly, many white residents in all Indiana counties approved of the Klan’s views on white supremacy. However, the movement’s appeals to white supremacy and its paternalistic diagnosis of the race “problem” should have resonated most strongly with white residents in counties where African Americans actually resided. As McVeigh (1999) has noted, the Klan’s paternalism toward blacks was attractive to farm owners who were concerned about maintaining a source of cheap labor (also see Tolnay and Beck 1995: 202–38). To the extent that blacks could be persuaded to accept a subordinate status, the Klan’s paternalistic diagnosis of the race problem could also appeal to white workers, as they hoped to exclude blacks from competing with them for their positions (McVeigh 1999). As is often the case with paternalistic methods of dominance, the threat of violence always loomed just beneath the surface of the Klan’s paternalism (Jackman 1994; Maclean 1994).

The Klan’s framing of race should have produced very little political backlash within the state of Indiana. Although the Klan clearly excluded blacks when constructing the boundaries of their organization, they did attempt to form an alliance with black voters during the election campaigns of 1924 (Thornbrough 1961). In spite of the Klan’s efforts, most African Americans surely felt excluded by the Klan’s boundary construction and had good reason to be wary of the movement, given its reputation for violence. Even so, in the unlikely event that black voters would abandon the Republican Party en masse in order to oppose a Klan-sponsored candidate, there were not enough black voters in any of Indiana’s counties to offset the political support that could be gained from white voters who were not members of the Klan, but identified with the movement’s claims of White supremacy.

FRAMING CATHOLICISM

Anti-Catholic sentiment was widespread in Indiana in the 1920s and the Klan capitalized on these deeply held prejudices (Blee 1991; MacLean 1994). Catholics were characterized as being responsible for a wide array of evil acts ranging from sexual perversion to fomenting revolution. In their attempts to link Catholics to a wide variety of problems in Indiana, the Klan recognized the voting behavior of Catholics who, according to Klan leaders, voted as a bloc in ways contradictory to the Klan's agenda. The Klan, for example, strongly supported prohibition and saw Catholics as a primary source of opposition. They also viewed Catholics as a critical obstacle to their goal of improving public education. To the Klan, Catholic bloc voting violated republican ideals and the separation of church and state (*Fiery Cross*, September 26, 1924; MacLean 1994). Their belief in republican virtue and separation of church and state, however, did not prevent them from inviting all Protestants to unite within their own political movement. Economic themes also played into the Klan's framing, as movement leaders encouraged boycotting of Catholic merchants and urged members and sympathizers to give preference to Protestants in trade and in hiring decisions (Blee 1991).

The Klan's sensationalist anti-Catholic rhetoric seemed to be particularly effective as motivational framing. Many claims concerning the Catholic "menace" were completely fabricated and calculated to promote a sense of both urgency and outrage. For example, Klan leaders and promoters described in gruesome detail how the Knights of Columbus were conspiring to violently take over the country. Kidnapping, torture, sexual assault, debauchery, and various other depravities were alleged to be common activities of Catholic priests (Blee 1991). While prejudice against Catholics ran deep in Indiana in the 1920s, we expect that the anti-Catholic component of the Klan's framing resonated most strongly among Protestants in counties with high proportions of Catholics. In those counties, conflicting political stances between Protestants and Catholics would have been more consequential for those individuals who shared the Klan's positions on the issues. Unlike immigrants and African Americans, however, in many counties Catholics were of sufficient number to provide significant political opposition. Catholics comprised more than five percent of church members in 66 of Indiana's 92 counties. In fact, Catholics comprised more than 20% of church members in 31 of Indiana's counties (Department of Commerce 1926). The Klan's exclusion of Catholics could therefore generate a significant political backlash in many counties. Indeed in the homogeneous state of Indiana, the anti-Catholic rhetoric was the single component of Klan framing that could generate either obstructed or adversarial conditions for the movement.

Spatial Proximity and Opportunistic Frame Extension

The effectiveness of collective action framing is not only affected by the structural context, but also by spatial distance between movement strongholds and communities being targeted by recruiting efforts. Figures 1 and 2 (presented earlier) showed that the Klan grew to be particularly strong in Indiana's corn growing regions in the mid-section of the state. The Klan's economic framing should have resonated strongly in those counties, facilitating Klan recruitment. It is also important to note, however, that D.C. Stephenson's headquarters were in Indianapolis, situated in Marion County in the center of the state. According to the Klan's membership lists, there were around 25,000 Klansmen in Marion County in 1925.⁴ Thus, the center of Klan activity was located in the heart of Indiana's corn-belt and the correspondence between corn production and Klan strength might be due, at least in part, to the spatial spread of the Klan from its center rather than from the structural push of the agricultural economy. In fact, some scholars have argued that Indiana was so homogenous in terms of its racism, nativism, and religious bigotry, that any movement promoting the supremacy of native-born, white Protestants could have caught on like wildfire (Blee 1991; Chalmers 1987). A key variable, according to this line of thought, is simply exposure to the Klan and its recruiters. Individuals in counties adjacent to Klan strongholds may have had greater exposure, as influence from a nearby Klan chapter could spill over county lines.

We believe that this argument has considerable merit. Indeed, the Klan's racism, nativism, and religious bigotry would have been warmly received by many of Indiana's native-born white Protestants in the 1920s. In addition, the Klan held many large social gatherings that were useful in promoting solidarity among members, but also useful in attracting new members (Blee 1991; Moore 1991). For example, in addition to 20 brass bands and a "Big Barbecue," an advertisement for a Klan-sponsored event in Valparaiso promised the following:

High Tight Wire Walking, 100 Feet in the Air — Wild Bronco-Busting — Outlaw Horses — Imported Texas Cowboys — National Speakers — 200 Horsemen — Evening Fire Works — Illustrated Parades — Visit Valparaiso University — The Sand Dunes — See the Calumet Region. (Moore 1991:99)

Events such as the one held in Valparaiso often attracted very large crowds, drawing individuals from surrounding counties. Exposure to the Klan through these social events and public speaking engagements in nearby counties could potentially aid recruitment efforts in a county, independent of the county's structural features.

We believe that there is an even more important reason to think that spatial proximity to movement strongholds would have had a strong influence on recruiting success. Klan recruiters practiced what we call "opportunistic frame extension." The term *frame extension*, coined by Snow et al. (1986:472) refers to a movement's attempt "to enlarge its adherent pool by portraying its objectives or activities as attending to or being congruent with the values and interests of potential

adherents.” Through frame extension, movement leaders add new items to their agendas in order to enlist participation from individuals who might not have otherwise supported the movement. Although many social movements engage in frame extension, Klan recruiters carried this practice to extremes. Many leaders of the Klan, including Indiana’s Stephenson, enriched themselves through membership fees and through the sale of Klan robes and other movement paraphernalia. Klan recruiters, or “Kleagles,” also earned a commission based on membership fees. This provided a strong incentive to recruit members by any means necessary. As Tucker (1991:70) describes it,

One organizing principle enunciated by Imperial Wizard Simmons and Grand Dragon Stephenson was: First find out what a particular community’s pressing concerns and needs are — from cleaning up crime and political corruption to building new schools or hospitals — then promise to do — and do — something about them.

The effectiveness of this type of opportunistic frame extension depends, to a great extent, on the knowledge of local concerns and values held by individuals residing within a community. Therefore, we would expect to find substantial geographical clustering in Klan strength. Because knowledge of local conditions diminishes with distance, it should have been harder to recruit members within counties that were far removed from other Klan strongholds.

Analysis of Klan Strength

INDEPENDENT VARIABLES

In the discussion above, we have identified several structural features of Indiana’s counties that should explain county-level variation in the Klan’s organizational strength. By incorporating much of the progressive’s economic agenda into its frames, the movement should have been particularly successful recruiting members in underindustrialized counties and in counties with high levels of corn production. Like many progressives of the time period, farmers and members of the middle-class in these counties resented tariffs that benefited the industrial economy at their expense. Because corn was produced primarily for export, high tariffs were particularly damaging to local economies in corn producing regions. Many individuals residing in corn producing counties, therefore, should have been receptive to the Klan’s diagnosis of economic conditions. As a measure of industrialization, we use the natural log of value added to manufacture in 1919. We measure corn production as the number of acres in each county devoted to growing corn as a percent of the acres of improved farm land in 1920.

Collective action frames constructed by Klan leaders also linked immigration, race, and religion to specific problems that confronted some of the individuals that they hoped to recruit. Although many of Indiana’s white Protestants surely

appreciated the Klan's bigoted appeals, we believe that the Klan's frames should have had the most resonance in counties with relatively high proportions of immigrants, Catholics, and African Americans. The diagnostic component of the Klan's framing of race, religion, and immigration would be more attractive to potential Klan recruits if immigrants, Catholics, or African Americans actually resided in the county. Therefore, we include measures of the percent of the population that was African American in 1920, the percent that was foreign-born in 1920, and the percent of church members that were Catholic in 1926.

A MEASURE OF KLAN EXPOSURE

To test for a spatial diffusion effect, we enter an additional variable that reflects each county's exposure to the Klan in other counties. One straightforward measure of Klan exposure in any given county would simply sum over all counties the number of Klan members (N_j) divided by the distance between counties (d_{ij}):

$$Exposure_i = \sum_j \frac{N_j}{d_{ij}}, i \neq j. \quad (1)$$

As pointed out by Land and Deane (1992) and Tolnay, Deane and Beck (1996), using this kind of exposure variable would violate the assumptions of OLS when predicting Klan membership.⁵ Therefore, we follow the method they developed by solving two equations.⁶ In the first equation, we regress Klan membership on the independent variables described above plus the number of adult males in the county. The OLS regression model produces predicted Klan membership values (L^*) for each county. Adjusting for distance between counties, we calculate potential exposure to the Klan by:

$$LE_i = \sum_j \frac{L^*_j}{d_{ij}}, i \neq j. \quad (2)$$

We then enter the Klan exposure measure (LE_i) as a predictor of Klan membership for county i . A positive effect of exposure would indicate that Klan membership in Indiana counties was influenced by Klan membership in other counties, with greater weight given to proximate counties. In other words, the stronger the organization is in proximate counties, the higher the Klan membership within the county.

The above approach to measuring exposure assumes that no influence comes from outside the boundary that defines the social system. In this case, the assumption would be that no Klan activity occurred outside of Indiana or that any Klan activity that did occur elsewhere had no effect on Indiana. Because this assumption is untenable, we adjust the exposure values for each county based on estimates of Klan activity in the four states contiguous to Indiana

(Michigan, Ohio, Illinois, and Kentucky). Each county's calculated exposure value (LE_i) is multiplied by the correction factor, C_i :

$$C_i = 1 - q + \frac{q \text{Max}[LE_j]}{LE_i}, \tag{3}$$

where q is a ratio of Klan concentration outside Indiana to Klan concentration inside Indiana and LE is the original computed value for county i 's exposure (in other words, $LE_i = LE_i$). See Appendix A for the derivation of this correction factor.

DEPENDENT VARIABLE

The Klan's success in recruiting would be best measured by identifying the pool of potential members and then calculating how many of them joined. In the present case, the pool of potential recruits would be the adult, male, white, native-born, Protestants in any county. Unfortunately, the available data do not allow us to be this specific. In particular, decennial census data do not allow us to separate Protestants from the Catholics. Therefore, we analyze two complementary measures of Klan strength. We first analyze Klan membership as a percentage of adult, male, native-born, Whites in each county. This measure does not eliminate Catholics from the denominator of the variable, and therefore tends to understate the effect of the Catholic population on Klan recruitment. This occurs because the presence of Catholics drives up Klan membership among Protestants, but this effect is offset because the Catholics (included by this measure in the recruitment pool) obviously will not join the Klan.

Because the first construction of the recruitment variable cannot straightforwardly show the effect of the Catholic Population on Klan recruitment, we also present a supplementary analysis that calculates Klan strength as a percentage of all non-Catholics in a county (based on the Department of Commerce's 1926 *Religious Bodies* census).⁷ The results produced should be similar to the first analysis except that the percent Catholic should have a more positive effect on Klan recruitment because the recruitment pool is limited to Protestants. The details of measurement for all variables and the source of the data are provided in Appendix B.

RESULTS

The results predicting Klan recruitment are presented in Table 2. In model 1, the dependent variable is Klan membership as a percentage of the adult, male, native-born, whites in each county. The findings are consistent with our expectations. Klan exposure, the measure of spatial proximity, is highly significant indicating substantial geographic clustering of the Klan in Indiana. Corn producing areas and less-industrialized areas were both responsive to the Klan, reflecting resonance

with its economic framing. Also as expected, both African American populations and immigrants increased the pull of the Klan, consistent with the notion that the Klan's diagnoses of problems related to race and immigration resonated more in counties where blacks and immigrants actually resided. The percent Catholic, however, is not significant, but as described above, this may be an artifact of the construction of the dependent variable. In model 2, Klan recruitment is calculated as a percentage of all non-Catholics in each county. The results are parallel to model 1 except that percent Catholic now has a significant positive effect on Klan recruitment, indicating increased salience of anti-Catholic frames where more Catholics were present. In short, Klan recruitment worked in Indiana counties where structural conditions were consistent with the framing they offered. Spatial proximity to movement strongholds also had a strong, positive effect on movement recruiting. We believe that this strong spatial effect is due, to a great extent, to the movement's practice of opportunistic frame extension.

Boundary Construction and Political Constraints

STRATEGIC DILEMMAS FACING THE KLAN

The Klan had hoped to translate its organizational strength into political influence by virtue of the movement's capacity to deliver a large bloc of votes to a presidential candidate who was willing to advance the Klan's agenda. Klan leaders encouraged voters to disregard party loyalties and form a bloc of "independent" voters (*Fiery Cross*, June 20, 1924). An article published in February of 1924 expressed the Klan writer's hope that LaFollette would receive the Republican nomination (*Fiery Cross*, February 29, 1924). According to the Klan press, "LaFollette's public record is a continuous effort — between elections — to fulfill the most attractive pledges made — before elections — in the Republican Platform . . . LaFollette for years has been advising the G.O.P. to clean house, fumigate, cease evil communication, eschew wicked companions, generally repent and reform" (*Fiery Cross*, February 29, 1924).

Klan leaders, however, could not count on a LaFollette nomination; nor could they count on a LaFollette victory as a third party candidate. They recognized that they could maximize their political leverage by keeping their options open. Large contingents of Klansmen attended both the Democratic and Republican conventions in hopes of influencing Party platforms and the nomination processes. At the Republican convention, the nomination of the incumbent president Coolidge was a foregone conclusion. The Indiana Klan had never been hostile toward Coolidge, as it had been toward his predecessor Harding. They noted that Coolidge seemed to share their view that "America is for Americans" (*Fiery Cross*, December 14, 1923). Like the Klan, Coolidge also supported prohibition and wished to reduce taxes. The Klan also took some comfort in Coolidge's reluctance to firmly identify himself with mainstream Republicans on the tariff issue (*Fiery Cross*,

TABLE 2: Klan Recruiting in Indiana Counties

	Model 1	Model 2
Spatial effect		
Klan exposure	.00955*** (.0023)	.00301*** (.00079)
Economic features		
Corn production	.449** (.16)	.178** (.055)
Industrialization	-1.53** (.49)	-.519** (.17)
Boundary construction		
Percent African American	1.22** (.46)	.355* (.16)
Percent foreign born	.798*** (.20)	.193** (.069)
Percent Catholic	-.00303 (.058)	.0637** (.020)
Constant	3.40 (7.0)	(2.4) .337
R ²	.553	.541
Adjusted R ²	.520	.507

Notes: Standard errors are in parentheses.

* p < .05 ** p < .01 *** p < .001 (two-tailed tests).

September 7, 1923). Yet the Klan press did express doubts about Coolidge, fearing his ties to big business and that he might veto a bill to restrict immigration (*Fiery Cross*, May 9, 1924). Coolidge also gave no indication that he would lower tariffs, and support for the tariff ended up being a featured plank in the Party platform. When the Republican Convention ended in June, the Klan's Imperial Wizard announced that he would not allow any political party to own or disown the Ku Klux Klan (*Time Magazine*, June 23, 1924).⁸

In June of 1924, Klan leaders still entertained hopes that the Democrats would nominate a progressive candidate sympathetic to the movement's agenda. Deep divisions within the party, however, would make it difficult for the Klan to capture the Democratic machinery. Northeastern urban delegates supported the nomination of Al Smith, the Governor of New York. Smith was an anathema to the Klan — a Catholic who opposed prohibition, was friendly to immigrants, and supported organized labor. The other leading contender was William Gibbs McAdoo who had served under Woodrow Wilson as the treasury secretary and gained a reputation as a strong progressive leader.

The Indiana Klan's leadership strongly preferred McAdoo to Smith, but they hoped a stalemate between the two would allow them to promote Samuel Ralston, a U.S. Senator from Indiana (Lutholtz 1991). The stalemate did materialize as the Klan press predicted, but John W. Davis emerged as the compromise candidate and secured the nomination. The Klan withheld judgment in the immediate aftermath of the convention because Davis had remained silent during a bitter debate over a platform plank that would have condemned the Ku Klux Klan by name (McVeigh 2001).

By the time that the elections drew near, the Ku Klux Klan had organized a formidable voting bloc. Courting a presidential candidate, however, was a complicated process. In Indiana, incorporating progressive economic goals into the movement's collective action frames proved to be very effective for recruiting members. Based on economic concerns articulated by Klan leaders, LaFollette would have been a very attractive choice. Although Davis was not the progressive Democratic nominee that movement leaders had hoped for, he represented the Party that had traditionally carried the anti-tariff banner in American politics. The Republican platform, on the other hand, featured strong support for the tariff and Coolidge was largely unsympathetic toward the economic plight of rural Americans. In fact, he was quoted as saying "farmers have never made much money. I don't believe we can do much about that" (Patterson 1983:158; Wynn 1986:228). But the Klan's collective action frames did not simply address economic issues. Movement leaders had constructed clear group boundaries, pitting native-born white Protestants against everyone else. Although this helped them to recruit members in states such as Indiana, and it helped to promote a sense of solidarity that is needed for social movement activism, it produced a political backlash in many communities and imposed constraints on how the presidential candidates could respond to the movement.

STRATEGIC DILEMMAS FACING THE CANDIDATES

Responding to the Ku Klux Klan presented a strategic challenge for all three presidential candidates. The movement enjoyed widespread support in many states, not just in Indiana, and movement leaders were determined to translate their organizational strength into electoral influence. Yet aligning with the Klan to gain the votes that the movement could deliver would not come without cost. Because the Klan had relied on a highly exclusionary boundary construction, LaFollette ended up with little choice but to condemn the organization, despite sharing their views on many economic issues. Any appearance of sympathy toward the Klan would have alienated immigrants and descendents of recent immigrants who had traditionally supported his candidacies in Wisconsin and would be an important source of support in a national election.

Soon after LaFollette announced his candidacy, he was compelled to clarify where he stood in relation to the Klan. He took the opportunity to vociferously condemn the organization (*New York Times*, August 9, 1924). LaFollette continued to speak out against the Klan on the campaign trail, which, in turn, unleashed the fury of the Klan press. From August through November, a barrage of attacks against LaFollette appeared in the *Fiery Cross*, condemning LaFollette as both a radical and as a representative of immigrants and Catholics:

It now appears that LaFollette was promised the Roman Catholic vote of America. Who promised this vote is the question of today although to many minds it has already been answered. LaFollette has the votes of all radicals, reds, bolshevists, in the country. While the Roman Catholic vote would in great way be a duplication, it is realized that these combined factions could poll a heavy vote. (*Fiery Cross*, August 22, 1924)

The Klan was particularly problematic for Davis, the Democratic nominee. By 1920, no Democrat could alienate Catholics and immigrants and expect to win a national election. Yet condemning the Klan was also risky. Davis and his advisors calculated that the South would stick with the Democratic Party regardless of Davis' stance on the Klan. A condemnation of the Klan would satisfy disgruntled Smith supporters in urban locations and potentially pick up a large number of votes from African Americans in northern states (Chalmers 1987:213-14). Davis broke his silence on the Klan soon after the Democratic Convention, berating the organization at a campaign rally in New Jersey (Chalmers 1987). He continued to speak out against the Klan in the months that followed. In hindsight it may seem that Davis calculated incorrectly, as he lost the election, but he really had no choice. If he had failed to condemn the Klan, Catholic and immigrant voters would have surely defected to the other candidate who was sympathetic to their interests — LaFollette. After being spurned by the Democratic nominee, the Klan ruthlessly attacked Davis in the pages of *The Fiery Cross*. They repeatedly linked him to the Pope and to Al Smith, claiming that Davis was part of a Catholic conspiracy that put the Democratic Party “under the thumb of the Roman corporation” (*Fiery Cross*, October 24, 1924).

The Klan's boundary construction presented few problems for the incumbent Republican president, Coolidge. Coolidge's own views on race and ethnicity were quite similar to the Klan's. For example, Coolidge believed that “Nordics deteriorate when mixed with other races” (Maclean 1994:133). Remaining silent on the Klan issue would not alienate many voters that Coolidge, himself, had not already alienated with his own nativist views. By remaining silent, Coolidge could potentially pick up votes of Klan members and supporters in underindustrialized regions or corn producing regions who would have economic reasons to favor LaFollette or Davis. Because Davis and LaFollette had publicly announced their opposition to the Klan, and because Coolidge refused to do the same, the Indiana Klan threw its support to Coolidge. Throughout the state, local Klan chapters exerted considerable effort to turn out the vote for Coolidge and for a slate of Klan-endorsed

candidates (Blee 1991; Chalmers 1987; Moore 1991). In the end, Coolidge carried Indiana with 55.3% of the vote. Davis received 38.7% and LaFollette only 5.6% of the vote. The Ku Klux Klan gleefully took credit for Coolidge's lopsided victory. Although the Klan declared victory in November of 1924, it was a victory that involved abandoning the progressive economic themes that had been so effective in attracting members in Indiana.

The Klan's Influence on the Coolidge Vote

The Klan's boundary construction prevented the movement from having any real influence on policies advocated by the presidential candidates. The political leverage the Klan held by virtue of its organizational strength was nullified by LaFollette's and Davis's condemnations of the Klan. As a result of those condemnations, Coolidge was in a position to benefit from the Klan's support without having to alter his own political agenda to accommodate his new supporters. Since Coolidge gained the Klan's endorsement without having to adjust his positions on economic issues, he stood to gain increased support in Indiana's underindustrialized counties and corn producing counties — support that he would have been unlikely to receive were it not for the Klan's endorsement.

By failing to condemn the Klan, Coolidge risked losing votes among Catholics who resented the Klan's exclusionary boundary construction and were dismayed by Coolidge's unwillingness to condemn the Klan. Coolidge also risked losing support among immigrants and among African Americans, but in Indiana, immigrants and African Americans were too few in number to produce either obstructed or adversarial conditions in any of Indiana's counties. Votes lost in a county among immigrants or among African Americans could be easily offset by votes gained among native-born white individuals who, while not members of the Klan, identified with the movement's appeals to race and nativity. In Marion County, for example, Indianapolis wards that were predominantly African American and Republican strongholds gave the Democrats a majority of votes in 1924, while Republican voting increased sharply in Indianapolis' predominantly White wards (Giffen 1983:142-45; Thornbrough 1961:615). Coolidge's endorsement by white supremacists, therefore, resulted in a net gain for Coolidge in the county that had the highest proportion of African American residents.

To assess the impact that the Klan had on Coolidge voting, we regress the percent of votes received by Calvin Coolidge on Klan strength⁹ and on the same set of independent variables that were used to predict Klan strength in Table 2. We also control for the percent of votes that went to the Republican candidate Warren Harding in the prior presidential election of 1920. The ordinary least squares (OLS) estimates presented in Table 3 confirm our expectations. In model 1, we report the results for all independent variables except Klan strength. After controlling for Republican voting in 1920, we find that corn production has a significant, positive

effect for Coolidge. This finding would be contrary to expectations if we did not know about the Klan's activities, because Coolidge's economic policies would not have found favor in these regions. The role of the Klan in delivering the corn vote to Coolidge is confirmed in model 2 where Klan strength is entered into the model. Not only is Klan strength itself strongly related to Coolidge voting, but the positive corn effect disappears — indicating that the effect of corn production is mediated through the Klan.

In both models, industrialization is positively associated with Coolidge voting, which should be expected given Coolidge's lack of interest in rural grievances and his close alliance with industrial interests. However, also as expected, the effect of industrialization increases in model 2 when Klan strength is controlled. This indicates that the Klan was able to deliver some votes from underindustrialized regions to Coolidge despite his stand on economic issues.¹⁰

The Klan's endorsement of Coolidge actually benefited Coolidge in counties with relatively high proportions of African Americans. As mentioned previously, the number of black residents was not high enough in any of Indiana's counties to produce a significant backlash. Votes lost among black voters could be offset by votes gained among white voters who were sympathetic to the Klan's agenda. As can be seen in model 2, the effect is weakened when Klan strength is entered — suggesting that the Klan was responsible for producing at least part of the positive black effect. White voters who previously had voted Democratic, but appreciated the Klan's views on white supremacy would have had a greater incentive to switch to the Republican Party in counties with relatively high percentages of black residents. In these same counties, the National Association for the Advancement of Colored People (NAACP) actively opposed the Republican ticket in Indiana and was openly critical of Coolidge for failing to condemn the Klan (Giffen 1983). The Democratic candidate, Davis, also made several trips to Indiana openly courting Black voters (Giffen 1983). These activities highlighted the Klan's endorsement of the Coolidge in counties with relatively high proportions of black residents.

Beyond the effects of the other variables in the model, the percent foreign born has no effect on Coolidge voting. In a general sense, one would expect a negative relationship between this variable and Coolidge voting given his endorsement by the Klan. And in fact, if one does not control for the percent Catholic, a significant negative relationship is observed. But the numbers of immigrants were so small in Indiana and the overlap between immigrants and Catholics was so great that the independent effect of immigrant status is negligible in the full models.

The percent Catholic, however, has a significant negative effect on Coolidge voting. Compared to both immigrants and African Americans, Catholics were numerous enough in many Indiana counties to make a real difference in the presidential election. Thus, while the Klan may have been able to deliver some Protestant voters to Coolidge who were not members of the organization but appreciated the Klan's anti-Catholic rhetoric, the negative reaction of Catholics to

TABLE 3: Percent of County Vote for Calvin Coolidge, 1924

	Model 1	Model 2
Republican voting, 1920	.906*** (.050)	.906*** (.044)
Klan strength	.209*** (.041)	
Economic features		
Corn production	.200*** (.052)	.0114 (.060)
Industrialization	.592** (.22)	.786*** (.197)
Boundary construction		
Percent African American	.593** (.20)	.445* (.18)
Percent foreign born	.034 (.10)	-.112 (.093)
Percent Catholic	-.124*** (.025)	-.106*** (.023)
Constant	-8.66* (4.2)	-10.3** (3.8)
R ²	.847	.884
Adjusted R ²	.836	.874

Notes: Standard errors are in parentheses.

* $p < .05$ ** $p < .01$ *** $p < .001$ (two-tailed tests)

Coolidge was even stronger, resulting in a negative overall effect in counties where there were many Catholics.¹¹ Thus Coolidge's singular loss in Indiana, as a result of his alignment with the Klan, appears to have been the Catholic vote.¹²

Conclusion

In the early 1920s individuals joined the Ku Klux Klan for a variety of reasons. Some, no doubt, joined because they were attracted by the movement's religious bigotry and racism. Others joined because they opposed political corruption or because they wanted to defend prohibition. Still others joined hoping the movement could improve their economic situations. Yet Klan members were not randomly distributed throughout the population. The movement, as we have shown, gained strength in counties in which the Klan's diagnostic, prognostic, and motivational

framing should have resonated most strongly. The structural congruence provided by low levels of industrialization, high levels of corn production, and relatively high proportions of African Americans, immigrants, and Catholics provided fertile recruiting ground for the Klan. In addition to the central themes addressed by the Klan within the pages of the *Fiery Cross*, Klan recruiters opportunistically drew upon knowledge of local issues, using this knowledge to construct frames tailored to particular audiences. The consequences of this strategy seem to also be reflected in the substantial geographic clustering of Klan strength in Indiana.

The Klan's framing also had implications for its attempt to influence the outcome of the 1924 presidential race. The movement's exclusionary boundary construction meant that in many locations (particularly outside of Indiana) there would be significant political opposition to anyone aligned with the Klan. Thus, even if the Klan were strong in those areas, the best an aligned candidate could expect would be an *adversarial* condition in which the Klan delivered some votes while backlash against it would lose many others. For the two candidates who were most likely to address the Klansmen's economic grievances, given their opposition to the tariff, the costs of the backlash were too high, and both chose to condemn the organization. Calvin Coolidge faced a different situation, however, because his own views concerning race, religion, and the "foreign stock" had already eliminated those who would be alienated by the Klan. After Davis and LaFollete rejected the Klan, Coolidge found himself in an enviable position of gaining political support from the Klan without offering any concessions in return. By refusing to condemn the Klan, Coolidge risked losing votes among Catholics, immigrants, and African Americans but he also stood to benefit by picking up votes from the millions of Klan members throughout the nation. He also picked up votes from native-born white Protestants who were not members of the Klan, but were "included" within the movement's boundary construction.

We have used this case to illustrate the role that structural conditions play in both the mobilization and consequences of social movements. By examining the interplay of movement framing and structural features of local contexts we were able to explain why the Klan ended up endorsing a presidential candidate who opposed the movement's economic agenda — an agenda that had helped the movement to recruit its members in the first place. Our theoretical framework draws attention to a common problem that social movements face when they attempt to simultaneously recruit members and affect social change by influencing electoral outcomes. In order to effectively recruit members, movement leaders must often identify adversaries and draw exclusionary identity boundaries (Gamson 1992). By generating a backlash in the broader population, however, this process can diminish a movement's leverage on political representatives.

The theoretical argument advanced in this paper complements social movement theories that place primary emphasis on the mobilization of organizational resources and new political opportunities. But too little attention in these approaches

has been given to the ways that structural conditions inhibit or enable the emergence of collective action and direct its trajectory and consequences. We are not, of course, referring to political structures that underpin arguments in the political opportunity structures traditions which have received ample attention. Here we use the term structural to refer to the kinds of population, social, and economic conditions thought by earlier collective behavior theorists to be implicated in protest.

The neglect of social structure in social movement research is due, in large part, to the way that structural explanations of protest were coupled with flawed assumptions about individual protest participants within a prolonged critique of "classical" social movement theories (Lofland 1992; McAdam 1982; Oberschall 1973; Rule 1988; Schwartz 1976). However, it is not necessary to assume that protest participants are atomized and irrational to examine the role that social structure plays in shaping the causes and consequences of social movement mobilization. Indeed, structural conditions, particularly as re-cast in competition and diffusion frameworks, have found substantial empirical support as predictors of collective action (e.g., Myers 1997, 2000; Myers & Li 2001; Olzak 1992; Olzak & Shanahan 1996; Soule 1992).

In our study of the Ku Klux Klan, the positive effects of percent Catholic and percent foreign-born on Klan strength would fit neatly within theoretical frameworks that link inter-group conflict to varying degrees of ethnic competition and threat. However, we chose not to assume that inter-ethnic competition was the only — or even the most important — stimulus for the Klan's collective action. Restricting our focus in such a manner would have caused us to overlook the Klan's strong appeal in underindustrialized counties and corn producing counties. For example, in White County, Indiana, over 37% of native-born white males were members of the Ku Klux Klan. Only 3.8% of church members in the county were Catholic, only 2.4% of the population was foreign-born, and there was not a single African American resident in the county. The County had little industry to speak of, and the local economy was heavily dependent on corn production. According to U.S. Census figures, the average value of farm land declined by more than 47% in the county from 1920 to 1925. In counties such as this, and there were many of them, there was little ethnic or racial competition to speak of, but the Klan's co-optation of the progressive's economic themes should have resonated strongly.

We also expect that our attention to the Klan's tactical use of opportunistic frame extension may be useful in studying diffusion processes more generally. In recent years, researchers have become increasingly attentive to diffusion processes related to collective action (Myers 2000, 1997; Oliver & Myers 2003; Rasler 1996; Roscigno & Danaher 2001; Strang & Soule 1998; Soule 1997; Tolnay et al. 1996). In macro-level studies, when the mechanisms of diffusion are not observed directly, theoretical accounts of these mechanisms have focused primarily on how individuals receive information. For example, geographic

proximity increases the likelihood that individuals will be exposed to information or events that will lead them to act in a particular way. Our approach complements this work by specifying how spatial proximity affects not only the recipients of information, but also those who are on the delivering end. The geographic diffusion of a social movement can be facilitated when movement recruiters are familiar with local issues and controversies in nearby communities because these issues and controversies can be incorporated into the movement's frames.

Because all social movements engage in framing processes, and because collective action frames typically diagnose collective problems and construct group boundaries, our theoretical approach should be useful in studying the mobilization and consequences of a wide variety of social movements — not just those that involve racial or ethnic conflict. In closing, however, we believe it is important to note some limitations on the generalizability of our argument. First of all, the framing dilemma that we have described in this article is only relevant for social movements that are attempting to gain concessions from the state. Also, the problem of developing a frame that attracts members without generating a significant political backlash is likely to be more complex for movements, like the 1920s Klan, that attempt to extend their influence beyond the local level. The significance of political backlash in the broader community is also likely to depend on the structure of political opportunities. Political mediation theory proposes that political actors are more likely to be responsive to a social movement if the movement is organizationally strong and political actors are vulnerable to displacement (Amenta, Bernstein & Dunleavy 1994). We add that under these conditions, political actors are also more likely to be concerned about a possible backlash that could result if concessions were made to a social movement organization. Making concessions to even a strong social movement organization could be risky if the movement does not enjoy broad support in the larger community.

In the case of the Ku Klux Klan, the political opportunity structure was wide open. The Republican Party was deeply divided and Coolidge was in grave danger of losing his job. Only twelve years earlier, a similar divide among Republicans made it possible for a Democrat to capture the White House because Republican voters were torn between supporting incumbent president William Howard Taft and supporting Theodore Roosevelt's "Bull Moose" challenge. LaFollette's defection from the Republican Party in 1924 could have easily produced the same result. The Coolidge administration was clearly concerned about LaFollette, as the Republicans spent unprecedented sums of money on newspaper advertisements that attacked his candidacy (LaFollette & LaFollette 1953:1140). Under these conditions, all three candidates should have felt considerable pressure to respond to the demands of a large political movement. The Klan's construction of identity boundaries, while useful in

recruiting members, prevented the organization from transforming political opportunity into political gain.

Notes

1. By "social structure," we are not referring to political structures that underpin arguments in the political opportunity structures tradition which have received ample attention. We use the term *structural* to refer to the kinds of population, social, and economic conditions thought by earlier collective behavior theorists to be implicated in protest.
2. These figures were prepared in the summer of 1925 in an attempt to assess the organization's strength at a time when the Klan's popularity was in decline. Although not exact, we use these figures as a close proxy for the Klan's organizational strength prior to the elections 1924.
3. Although precise membership figures are not available for the Women's KKK, data about the existence of WKKK chapters are available (Blee 1991) and parallel the distribution of male members. In counties that did not have a chapter of the WKKK the median value of male Klan membership is 11.45%; in counties with 1 or 2 chapters of the WKKK, median male membership is 21.4%; and in counties with 3 or 4 chapters of the WKKK, the median male membership is 24.8%.
4. The unusually high number of Klansmen in Marion County also suggests that it may be an outlier having unusually strong effects on the results. We conducted our analysis with and without Marion county in the data and produced substantively equivalent results.
5. The objection does not strictly apply in this case because Klan membership is used to compute exposure and percent Klan in the county is the outcome variable. Nevertheless, the two variables are similar enough to warrant concern. Therefore, we used both the approaches represented by equation 1 and equation 2. No substantial differences resulted. These additional analyses are available from the authors.
6. See also Doreian (1980), Ord (1975), Anselin (1988), and Land et al. (1991) for more detail on the development of this approach.
7. Just as the prior version of the variable does not eliminate Catholics from the recruitment pool, this variant does not directly eliminate blacks and immigrants. Nevertheless, because these two populations were so small in Indiana, they are unlikely to have much of a direct (negative) effect on recruitment success and are likely to mainly produce a positive indirect effect on Klan membership.
8. The Imperial Wizard's claim was also published several times in large bold letters within the pages of the *Fiery Cross* and in the Klan's national newspaper, *The Imperial Nighthawk*.
9. This is the same variable that was the dependent variable in Table 2, model 1: Klan membership as a percentage of adult, male, native-born whites. We also calculated parallel regressions using the alternative dependent variable used in Table 1, model 2 and the results were substantively equivalent.

10. We also tested for the mediating effect of Klan strength in structural equation models. Those results indicate the substantively equivalent effects to those discussed here.

11. The reduction in the size of the Catholic coefficient in model 2 supports the notion that his association with the Klan caused lower levels of voting for Coolidge in counties with many Catholics.

12. Coolidge's stance on the Klan is clearly not the only factor that influenced voting patterns in 1924. Yet we expect that due to the Klan's strength in Indiana and its association with Coolidge's candidacy our findings have more to do with the Klan's activities than with broader political realignments that were taking place. In exploratory state-level analyses (not shown), we find that the percent Catholic does not have a significant impact on voting for Coolidge after controlling for Republican voting in 1920. Similarly, we find in state-level analyses that corn production is negatively related to Coolidge voting and has no significant effect after controlling for Republican voting in 1920. Furthermore, we estimated models predicting the vote for the 1928 Republican presidential candidate, Herbert Hoover, for Indiana counties using the same set of independent variables used to predict Coolidge voting. We find that corn production is not a significant predictor of Republican voting in 1928. In fact when our measure of Klan strength is included, corn production has a significant negative impact on the vote for Hoover. These findings provide further evidence of our contention that corn producing regions would not have turned out the vote for Coolidge were it not for the Klan's endorsement of his candidacy. Without membership data for other states we are unable to assess the Klan's impact on voting outside of Indiana. It is also worth noting that in some states Klan leaders chose not to endorse Coolidge even after their organization was condemned by his two opponents (Chalmers 1991; MacLean 1994).

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APPENDIX A: Derivation of the Spatial Correction Factor

When assessing the inter-actor influence in a spatial environment, it is often difficult to decide what boundary defines the set of influential actors. Sometimes reasonable limitations based on physical or political boundaries can be imposed on the situation because actors outside such boundaries have little interaction with those inside the boundaries. At other times, boundaries are imposed more arbitrarily because of the limitations of data or simply the practical need to limit the analytic terrain. In that case, the inter-actor influence experienced by actors within the system is under-estimated because influence from outside the artificial boundary is not included in the model. In these cases, it is necessary to adjust spatial influence indicators to include estimates of influence from outside the boundary in addition to that influence coming from actors within the boundary.

The main problem that arises from an artificial boundary is that spatial models of influence usually are not constant over distance (usually, influence is assumed to diminish over distance, as in this paper), and thus the missing influence is not constant over all actors in the system. Specifically, the missing influence from the outside would have a greater effect on those actors near the boundary than those in the center of the geographic space, and therefore, the distortion from ignoring the outside influence is greater for border actors. In the current case, the estimate for Klan exposure would be underestimated for all counties, but the underestimate would be considerably more severe for counties on the Illinois border than for those counties in the center of Indiana.

The severity of this problem depends in part on the distance decay function assumed to reflect the drop in influence over distance and in part on the level of activity outside the border. If a distance decay function diminishes rapidly, it causes more of a problem because counties near the border experience considerable outside influence, while those near the center of Indiana would experience virtually none. Likewise, if the level of Klan activity outside Indiana is high, then boundary distortion plays a much greater role. If we knew there was no Klan activity in Michigan, Illinois, Ohio, or Kentucky, there would be no boundary distortion because all influence would be contained in the model. Of course, there was Klan activity in states contiguous to Indiana, and therefore we must introduce a correction to our Klan exposure measure.

Specifically, those counties on the periphery need to have their calculated exposures increased relative to those on the internal areas to make the exposure less distorted. To begin, suppose a hypothetical situation in which the true exposure in each unit is exactly equal ($LE_1 = LE_{i+1} = \dots = LE_{n-1} = LE_n$). Imposing the Indiana border on the counties and then calculating the exposure reveals the amount of distortion provided by imposing the border. If, for example, the calculated exposure for one county is .705 and maximum exposure calculated for any county is 1.18, then the first county's exposure is calculated at only 59.7% its true value (since the true hypothetical exposure is equal). This also tells us that 59.7% of the county's exposure comes from the inside of the border and 40.3% comes from outside the border. The proportions of exposure from the inside and outside any given county (i) are given respectively by LEIP and LEOP:

$$LEIP_i = \frac{LEC_i}{\sum_j^N Max[LEC_j]}, \quad LEOP_i = 1 - \frac{LEC_i}{\sum_j^N Max[LEC_j]} \quad (A1)$$

APPENDIX A: Derivation of the Spatial Correction Factor (Continued)

where LEC is the exposure value calculated for unit *i* using only those elements inside the border. This means, of course, that the inside and outside exposure values can be calculated as LEI and LEO:

$$LEI_i = (LEIP)_i (Max_j^N [LEC_j]), \quad LEO_i = (LEOP)_i (Max_j^N [LEC_j]) \quad (A2)$$

Therefore, if Klan presence were equally distributed across counties inside and outside of Indiana, a corrected exposure value could simply be calculated by increasing LEC by LEO.

Unfortunately, the assumption that Klan activity outside Indiana was approximately equivalent to Klan activity inside Indiana is not reasonable. During the time period we examine above, some limited information is available about Klan activity in states adjoining Indiana. These accounts indicates that while the Klan was most active in Indiana, there was also substantial activity in Michigan, Illinois, Kentucky, and Ohio. According to estimates produced by Jackson (1967), Klan concentration in these four states was, on the average, about one-quarter (24.3%) of the concentration inside Indiana.

Using this estimate, we adjust the correction factor in equation A2 using *q* which is the ratio of Klan presence outside the border to Klan presence inside the border. If we had actual data on Klan presence outside the border, the outside exposure (LEO) would be calculated by:

$$LEO_i = \sum_k \frac{Klan_k}{D_{ik}}, i \neq k \quad (A3)$$

where *k* represents counties outside the border and *D* is the distance from county *i* to each of the *k* outside counties. Since we do not have detailed county by county information about Klan activity outside Indiana, we have to assume that Klan activity is constant across the outside units, which means:

$$LEO_i = Klan \sum_k \frac{1}{D_{ik}}, i \neq k \quad (A4)$$

where *Klan* is the Klan presence in the outside counties. In our previous calculation of inside and outside exposure (equations A1 and A2), we assumed that inside counties had the same Klan presence as the outside counties. We now relax that assumption and allow the Klan presence outside to be a proportion (*q*) of the value representing internal Klan presence:

$$Klan_{out} = Klan_{in} * q \quad (A5)$$

which means that our corrected outside exposure value (CLEO) is simply:

$$CLEO_i = LEO_i * q \quad (A6)$$

Using this corrected outside exposure value (CLEO), the total corrected exposure would simply be:

$$CLE_i = CLEO_i + LEI_i \quad (A7)$$

Now we can calculate new proportions of exposure for the outside and inside using the elements of equation (A7). Furthermore, tracing these elements back to equations (A1) and (A2) makes in plain that these new proportions can be calculated based only on the calculations of the internal exposure values and *q*. The proportion of exposure that comes from the inside, therefore is:

APPENDIX A: Derivation of the Spatial Correction Factor (Continued)

$$CLEIP = \frac{LEI_i}{CLE_i} = \frac{LEI_i}{LEI_i + LEO_i * q} = \frac{LEI_i}{LEI_i + \left[\overset{N}{Max} [LEI_j] - LEI_i \right] * q} \quad (A8)$$

and thus the correction factor to be applied to any particular county's calculated exposure value is $1/CLEIP$. In other words, the correction is achieved by multiplying a calculated value (LEC) by

$$C_i = \frac{LEI_i + \left[\overset{N}{Max} [LEI_j] - LEI_i \right] * q}{LEI_i} = 1 + \frac{\overset{N}{qMax} [LEI_j] - qLEI_i}{LEI_i} = 1 - q + \frac{\overset{N}{qMax} [LEI_j]}{LEI_i} \quad (A9)$$

APPENDIX B: Measurement of Variables and Source of Data

Klan Strength: Membership figures are taken from Klan documents recovered by Harold Feightner. The figures are reprinted in Greenapple (1989) and Moore (1991:48-50). Two measures of Klan strength are constructed. First, Klan strength is calculated as the number of Klansmen as a percent of white, native-born adult males in the county. Second, Klan strength is constructed as the number of Klansmen as a percent of non-Catholics in the county. The number of non-Catholics is estimated by multiplying the proportion of church members that are non-Catholic by the total population. Data are taken from The Fourteenth Census of the United States, 1920. Volume III, Population, Table 9. United States Department of Commerce. Religious Bodies: 1926. Volume 1, Table 32.

Percent Catholic: Roman Catholics as a percent of all church members in 1926. Data are taken from the United States Department of Commerce. Religious Bodies: 1926. Volume 1, Table 32.

Percent Foreign-Born, 1920: Foreign-born as a percent of total population in the county. Data are taken from The Fourteenth Census of the U.S., 1920. Volume III, Population, Table 9.

Percent African American, 1920: African Americans as a percent of total population in the county. Data are taken from The Fourteenth Census of the U.S., 1920. Volume 3, Population. Table 9.

Corn Production: Acres of Corn as a percent of all improved farm land in the county, 1920. Data are taken from The Fourteenth Census of the United States, 1920. Volume VI, part 1, Agriculture. County Table I and county Table IV.

Industrialization: Natural log of Value added to manufacture, 1919. Data are taken from The Fourteenth Census of the United States, 1920. Volume IX. Manufactures. Table 2.

Klan Exposure: Measurement described in text and in appendix.

Coolidge Voting: Votes for Calvin Coolidge as a percent of all votes cast, 1924. Data are taken from Interuniversity Consortium for Political and Social Research (ICPSR).

Harding Voting: Votes for Warren Harding as a percent of all votes cast, 1920. Data are taken from Interuniversity Consortium for Political and Social Research (ICPSR).

Anti-Semitism As a Response to Perceived Jewish Power: The Cases of Bulgaria and Romania before the Holocaust*

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Abstract

We empirically examine variation in anti-Semitic acts and attitudes in Romania and Bulgaria before the Holocaust. In Romania, where Jews comprised a large proportion of the middle class and were associated with the leadership of the communist party, anti-Semitism increased when economic conditions worsened. Further, Romanian anti-Semitism increased when the size of the Jewish population increased, but only at times when the leftist parties were gaining strength. These findings did not replicate for Bulgaria, where Jews were neither holders of significant wealth nor associated with the leadership of the communist left. The theoretical implications for anti-Semitism and for structural accounts of prejudice are discussed.

Despite aligning Bulgaria with Nazi Germany in March 1941, Bulgaria's King Boris and his government resisted Nazi Germany's demands in the spring of 1943 to roundup the country's 42,000 Jews and deport them to Auschwitz. What is clear is that the decision of the King and the Bulgarian government to save the country's Jews did not take place in a vacuum. The Bulgarian people, along with the country's

** Authorship is alphabetical. A version of this article was presented at the 2003 American Sociological Association annual meeting. We would like to thank Marit Berntson, Dan Cazanaci, Svetozar Kitinov, Irina Livezeanu and Amy Ronnkvist for invaluable research assistance. We also thank Joachim Savelsberg and Chris Uggen for helpful comments on this work. This research was supported by grants from the National Science Foundation (#SES-9905000), The Dr. Sol and Mitzi Center Fund, the Philip and Florence Dworsky Endowment, the Edelstein Family Foundation, a University of Minnesota Grant-in-Aid of Research and the Provost office of the University of Pittsburgh. Please direct correspondence to William Brustein, 4G40 Wesley W. Posvar Hall, University of Pittsburgh, Pittsburgh, PA 15260. E-mail: brustein@ucis.pitt.edu or Ryan King, 909 Social Sciences Building, University of Minnesota, 267 19th Avenue South, Minneapolis, MN, 55455. E-mail: kingx077@umn.edu.*

Orthodox Church, played an active role in persuading the authorities to spare the country's Jews. Further, Bulgarian efforts to protect the country's Jews should not be interpreted as atypical, for relations between Jews and non-Jews in Bulgaria had been relatively cordial throughout the years (Bar-Zohar 1998; Ben Ya'akov 1997; Haskell 1994; Mallinger 1996; Todorova 1999).¹

Bulgaria's reaction to its Jewish community stands in stark contrast to the treatment of Jews by Bulgaria's northern neighbor, Romania. Romania is a particularly interesting case because save Tsarist Russia it was the only European state before WWI to refuse to emancipate its Jews. Moreover, Romanian fascist parties, most notably the Iron Guard, were possibly as vehemently anti-Semitic as the German Nazi Party (Payne 1995). On December 28, 1937 an anti-Semitic government (Goga-Cuzist) was appointed to lead Romania. In one of its first official acts, approved and enforced by King Carol in January 1938, the new government undermined the position of the Jewish minority residing in Romania by banning Jewish newspapers, firing Jewish public servants, cutting off state aid to Jewish institutions, and invalidating Jewish citizenship documents issued after the commencement of World War I. By royal decree, roughly 225,000 Jews, or approximately 36% of Romania's Jewish population, lost their citizenship (Marrus 1985; Shapiro 1974). Moreover, the Romanian government largely acquiesced to widespread anti-Semitic violence in the country, particularly during the inter-war period, and anti-Semitism during WWII was nearly as rampant in Romania as in Germany, exemplified by the two large unorganized pogroms taking place in Romania in 1941 in which thousands of Jews were killed or, more ominously, the fact that Romania's government was the only government besides the German Nazi government to establish and operate its own extermination camp in Podolia, where over 100,000 Jews perished in the camps (Chary 1972).

The considerable difference between Bulgaria and Romania concerning Jews and anti-Semitism makes for an intriguing case study. Why did Bulgaria protect its Jews despite its alliance with Nazi Germany during WWII, while anti-Semitism flourished in Romania? How great was the difference in popular anti-Semitism in the two countries, and how might the vastly different anti-Semitic trajectories in the early twentieth century be explained? We offer an explanation that draws from prior theoretical work emphasizing the role of changing economic conditions and shifts in the size of the Jewish population. Yet, we specify conditions under which these factors should affect anti-Semitism.

Theoretical Framework

STRUCTURAL THEORIES OF EUROPEAN ANTI-SEMITISM

Prior work on European anti-Semitism suggests changes in structural conditions are associated with anti-Semitism — notably changes in economic conditions and

demographics. Consider, for instance, modernization theories of anti-Semitism. Modernization arguments typically assign causality to either the effects of rising economic competition or to growing anomic stresses resulting from the process of modernization. The process of modernization in Europe embodied the emergence of liberalism and capitalism which, among other things, led to the political, social and economic emancipation of Jews. Jewish social mobility and Jewish competition elicited fears among many Gentiles, which reinforced anti-Semitic attitudes. An underlying argument within this strain of the modernization thesis of anti-Semitism is that modernization wrought a zero sum process that enhanced Jewish upward mobility at the cost of downward mobility for non-Jews. The losers in the process of modernization tended to harbor the strongest anti-Semitic beliefs. The emphasis in this argument is generally on the emergence of social tensions based on a competitive relationship between Jews and non-Jews (Almog 1990; Ettinger 1988; Fein 1987; Lindemann 1997). According to this thesis, anti-Semitism should increase when competition for limited resources increases, such as during times of economic stagnation.

This perspective jibes with scapegoat theory, another prominent perspective on anti-Semitism and inter-group conflict. This line of argument suggests that people of dominant ethnic or racial groups tend to blame particular minority groups in times of crisis. Blalock (1967) observes that highly visible or foreign minority groups with high economic status and low political clout filling a middleman role between the dominant elites and the impoverished masses, particularly in times of intense stress, are likely to become ideal scapegoats. Proponents of the scapegoat theory, as it pertains to the Jews, see the Jews as prototypical of a foreign middlemen minority. European societies experienced significant trauma after 1879, including major wars and a series of economic and social upheavals, and for many groups Jews became the objects of their frustration and aggression (Andreski 1963). That European Jews constituted a minority group dispersed among many countries and traditionally engaged as traders and artisans relying on non-Jewish customers made them convenient targets for the majority people's frustrations in times of national crises. Jews became a group upon whom the majority population instinctively assigned blame for their misfortunes (Ettinger 1988; Fein 1979; Katz 1980; Marrus 1985; Strauss 1993:7). Like modernization theory, scapegoat theory posits an increase in anti-Semitism during periods of economic deterioration.

Group threat theory (Blalock 1967; Blumer 1958) also suggests economic conditions affect out-group hostility, but this perspective also highlights the importance of demographic shifts. Specifically, as the minority group size increases, it becomes a more viable political and economic threat to the majority (Blalock 1967). Giles and Buckner (1993), for instance, find greater support for right-wing politician David Duke in the 1990 Senate election in voting districts where the proportion of Blacks was greatest. Although rarely employed as a theory of anti-Jewish sentiments, we suggest group threat theory provides a useful framework for understanding European anti-Semitism.

Consonant with modernization, scapegoat, and threat perspectives, we argue that changes in structural conditions, namely the economy and the size of the Jewish population, should affect levels of anti-Semitism. However, we differ from prior work by suggesting these associations should not be uniform across all settings. First, we argue the size of the minority group should influence prejudice or inter-group conflict only if the minority group is perceived to support a political agenda at odds with the agenda of the majority group. If the political agenda associated with the minority group were not viewed as threatening, then we would expect minimal association between minority group size and out-group hostility. We contend that where the subordinate group is perceived as supporting a threatening political party, the size of that group should significantly influence out-group hostility, prejudice, and violence. Comparing Romania and Bulgaria is fruitful for testing this assertion because, as we argue below, the communist party was closely linked with Judaism in Romania, but this association did not culminate in Bulgaria. Second, the effect of economic conditions on anti-Semitism should be salient where Jews are disproportionately represented in the middle class and tend to hold positions of power in the financial sector because they are more likely viewed as controlling wealth and resources. Again, Romania and Bulgaria are fruitful for examining this proposition because Jews were overrepresented in the middle-class in Romania but not Bulgaria (see below).

Bulgaria and Romania in the early twentieth century also make for an intriguing comparison because the two countries resembled one another on a number of notable characteristics. For instance, economic conditions in each country were comparable in the early twentieth century (Crampton 1987; Janos 1978), both industrialized at comparable rates, the two countries share geographic proximity, and both were governed by constitutional monarchies during the time period of interest. Yet, we argue anti-Semitism in the two countries took completely different trajectories in the first half of the twentieth century, and the impact of economic conditions and demographic change should not be uniform across the two countries. We contend that economic conditions and the size of the Jewish population should impact anti-Semitism where Jews were associated with controlling substantial wealth and subversive political parties, as we suggest occurred in Romania in the early 20th century. In the following section we unpack the role of Jews in the economic and political climate of Bulgaria and Romania prior to WWII before turning to our empirical analysis.

Jews As Economic and Political Threats in Bulgaria and Romania

ECONOMIC ANTI-SEMITISM

Since the advent of the Christian era Jews have been accused of following unethical business practices in second-hand trade, petty commerce, and moneylending (Pauley 1992; Weiss 1996). With the rise of the modern nation-state and the establishment of a modern world economy Jews were identified with economic liberalism and charged with manipulation of currency rates and prices due to their perceived control over the principal financial institutions throughout the West (Almog 1990; Arendt 1975; Birnbaum 1992; Katz 1980; Ruppen 1934). We see differences in this regard between Bulgaria and Romania.

As was the case in other east and central European nations during the interwar period, foreign capital played an increasing important role in Bulgarian industry and banking. Much like their European neighbors, both Bulgarian industrial workers and peasants suffered severely from the effects of the Great Depression. But unlike much of Europe, economic anti-Semitism failed to mobilize a popular following in Bulgaria. Elsewhere in Europe, anti-Semites aroused resentment toward Jews by pointing to the nefarious roles that Jews allegedly performed as moneylenders, major leaseholders, and financiers. In Bulgaria, myths about the inordinate wealth of Jews or Jewish avaricious behavior elicited negligible support because Jews were not noticeable by virtue of extravagant wealth or disproportionate domination of key sectors of the economy. In fact, in direct contrast to Romania where Jews often served as intermediaries between the noble landowners and peasants and as rural moneylenders, in Bulgaria these roles were more likely to be assumed by Christian Bulgarians (Chary 1972). In the literature on late nineteenth century Bulgarian agrarian conflicts over peasant indebtedness and tax resistance, there is little mention of rural anti-Semitism (Chary 1972; Crampton 1987).

The picture that emerges from a survey of Bulgaria's economy before 1939 is that Bulgarian Jews did not stand out by virtue of their exorbitant wealth or their domination over any branches of the Bulgarian economy. Rather, Bulgarian Jews were more likely to reside at the lower rung of the economic ladder. For instance, in 1940 Jews comprised fewer than 5% of Bulgarian doctors and less than 3 percent of Bulgarian lawyers (Benbassa & Rodrigue 1995; Todorov 1995). Thus it should come as no surprise that the Nazi accusation during the interwar period and World War II that Jews were the agent of worldwide capitalist exploitation failed to garner widespread acceptance in Bulgaria (Bar Zohar 1998; Todorov 1999).

This contrasts sharply with Romania, where Jews represented a large portion of the middle class and controlled major portions of wealth. For instance, Jews residing in the Old Kingdom provinces of Wallachia and Moldavia were overwhelmingly urban and engaged in commerce or small industry. Wallachia, with Bucharest as its capital and major city, had a larger native middle class than Moldavia. At the time of unification while Jews constituted 2% of the Wallachian population they

constituted roughly 10.7% of the Moldavian population. Anti-Semitism displayed greater intensity in Moldavia since the emerging Moldavian bourgeoisie found itself competing with an already entrenched Jewish middle class (Almog 1990; Janos 1978).

Butnaru (1992) notes that numbers of Jews of northern Moldavia succeeded in securing loans from Austrian banks in order to secure leases and consequently incurred the wrath of many non-Jewish tenants who were competing with the Jews for these leases. Remarkably, in 1899, Jews leased 72.4% of the total acreage leased by Romanian large estates (Janos 1978). Romanian nobles, according to Iancu (1978), used Jews to block the rise of the native Romanian bourgeoisie. The role of Jews as agents of the landed elites and as leasers of major holdings employing Romanian peasants placed Jews in the position of perceived exploiters of the Romanian peasantry and thus contributed to the growing resentment of Jewish economic domination and exploitation (Iancu 1978).

Fueling economic anti-Semitism was the overrepresentation of Jews in many of the professions in Romania. In the interwar period, for instance, Jews comprised between 4 and 5% of the Romanian population yet held a disproportionate presence in many professions, including law, medicine, and journalism. According to the official *Bulletin periodique de la presse roumaine* of June 19, 1937 Jews made up 80% of the engineers in the textile industry, more than 50% of doctors in the Army Medical Corps, and 70% of journalists. Jews comprised 15% of all university students though in certain academic areas like pharmacy and medicine Jews made up between 30 and 40% of the student body. Jews were also reported to constitute two-thirds of the population of white-collar workers. In Bucharest alone, Jews were believed to comprise nearly 80% of employees of banks and commercial enterprises, 40% of all lawyers, and 99% of the brokers on the Bucharest Stock Exchange (Nagy-Talevera 1970; Volovici 1991; Weber 1965).

POLITICAL ANTI-SEMITISM

By political anti-Semitism we refer to a root of anti-Semitism emanating from a perceived fear that Jews aim to control the state's political apparatus and/or achieve world power. Prior to 1879 political anti-Semitism was largely fueled by the belief that Jews were overrepresented as political advisors to monarchs, emperors or presidents. After 1879 political anti-Semitism experienced a dramatic upswing with the proliferation of political parties and movements and the popularization of widespread myths of a Jewish conspiracy to achieve world power. In particular, post-1879 political anti-Semitism focused on the presumed association of Jews with political parties and movements challenging the basis of the existing social order. Chiefly among these new parties and movements were the socialist or Marxist groups, which steadily gained prominence in Europe after 1879. These parties were perceived to represent a major threat to the interests of elite and middle class groups. Jews and socialism were inextricably tied in the eyes of anti-Semites for numerous

reasons. According to many anti-Semites the connection between socialism and Jews seemed real. They backed their claim by contending that Karl Marx, the founder of revolutionary socialism, was Jewish; many leaders of the socialist and, later, Communist parties were Jewish; and socialism's and Marxism's internationalist appeal appeared to coincide with the notion of a Jewish messianic tendency (Lindemann 1997; Wilson 1982). The successful Bolshevik Revolution in Russia in 1917 and the subsequent attempts by revolutionary socialists to seize power throughout Europe shocked millions of people in the West and catapulted political anti-Semitism to centerstage.

If the strength of the political left is positively correlated with political anti-Semitism then, at first glance, Bulgaria should appear as a more hospitable environment for political anti-Semitism than Romania. Ironically, for a country that had less than 10% of its population employed in industry on the eve of World War II, Bulgaria's fledgling socialist movement comes as a big surprise. In election after election during the early interwar period the Bulgarian communist and socialist parties typically drew from one-sixth to one-quarter of the popular vote (combined). For instance, in the March 28, 1920 national parliamentary elections, the communists and socialists tallied roughly 26% of the popular vote (Rothschild 1959:102).

Did the surprisingly stellar performance of the political left in Bulgaria produce a rise of anti-Semitism? The evidence points to no such increase. The explanation for this, we contend, resides largely in the fact that Jews were not alleged to be disproportionately involved in the Bulgarian Marxist movement. As both Chary (1972) and Oren (1973) emphasize, in contrast to the Communist parties of Eastern Europe, the Bulgarian Communist party stands out for the relative dearth of Jews as leaders. Rather than discontented minorities, as was the case in Romania, Bulgarian nationals comprised the backbone of the Bulgarian Communist party throughout the interwar period (Chary 1972; Meyer 1953; Oren 1973).

In the case of Romania the lack of industrial development retarded the growth of a socialist labor movement before WWI. Though a small socialist movement sprung forth in the 1890s within which Jews played a leading role, political anti-Semitism as an expression of the threat of Jewish socialism would only be seen as a potent challenge after 1917. Political anti-Semitism in post-1917 Romania did not emanate chiefly from the size of the socialist constituency as was often the case in Western Europe but rather from Romania's fear of Soviet Russian irrendentism and the overrepresentation of Jews in the leadership of the Romanian left. The specter of "Red Revolution" after 1917 brought political anti-Semitism to the forefront. Whereas the emergence of mass-based revolutionary Marxist parties fuelled the red scare in Western Europe the cause of the red scare and the popularity of political anti-Semitism in Romania derived largely from other sources. The fear of revolutionary socialism after 1917 had much to do with the seizure of power by revolutionary Marxists in neighboring Russia and Hungary and the incorporation

into Romania of former Hungarian and Russian territories. That the worldwide press gave inordinate attention to the fact that Jews played a leading role in the Russian and Hungarian communist revolutions further bolstered Romanian political anti-Semitism. Reports issued forth from Romanian authorities in the aftermath of World War I that Soviet, Hungarian, and Ukrainian communist agents were infiltrating the local Romanian communist organizations — organizations populated largely by Jews in the newly acquired Bessarabia, Bukovina, and Transylvania (Livezeanu 1995). That the Jews in Bessarabia and Bukovina were of Russian origin and that Soviet Russia refused to recognize Romanian claims to Bessarabia helped link anti-Semitism to anti-Communism (King 1980; Mendelsohn 1983; Treptow 1996; Vago 1975). Furthermore, the Romanian Communist Party in its propaganda played up its role as the defenders of both the interests of the working class and Jews during the interwar period (Fischer-Galati 1981; Janos 1978; King 1980).

We argue that the economic position of Jews in Romania relative to Bulgaria and the greater association of Jews with communist leadership in Romania should bear on how these societies reacted to changing economic conditions and increased Jewish immigration during the first part of the twentieth century.

Data and Measures

To empirically compare popular anti-Semitism as expressed through acts and attitudes for Bulgaria and Romania, this study systematically examines two rich sources of data. One of the most invaluable historical sources of information on Jews and Jewish issues is the *American Jewish Year Book* (AJYB). The AJYB has been published annually since 1899 and contains a section dedicated to summarizing leading news events of the previous year from around the world. Included among the types of events covered are changes in laws pertaining to Jews and accounts of violence against Jews. The news events were categorized by country and, with few exceptions the events were identified by day, month, and year in which they occurred. Because, among other things, the AJYB served as a digest of anti-Semitic acts, it is an excellent source of historical information on anti-Semitic events. We systematically read the annual accounts of Jewish issues that happened in or pertained to Bulgaria and Romania between 1899 and 1939. While reading the accounts from the AJYB we made note of all anti-Semitic acts and sorted them by country, year, and type of act. Anti-Semitic acts ranged from false accusations against Jews to murderous riots (see Table 1 for typology). Occasionally we encountered an act that could realistically fit into more than one category. In this case, we went with the more serious category or further examined the context of the act. Many acts did not fit neatly into a specified category, but clearly discriminated against Jews in some fashion. Instead of creating many new categories with very small numbers, we elected to group these acts into a general

category titled “laws and acts of discrimination.” Our typology is designed to be approximate and descriptive, and our argument is that anti-Semitism in general should vary according to the nation’s economic conditions, the size of the Jewish population, and support for leftist political parties, at least where Jews are associated with economic and political threats. Thus, our dependent variable ‘anti-Semitic acts’ is the total number of acts recorded from the AJYB for a given year in the respective country.

As is the case with much historical data, our data have some limitations. The reports of events from around the world were sent to the editors by local and national Jewish organizations and the accuracy of the reports may have some reliability problems. For instance, editors of the AJYB may have included information that they found noteworthy, and anti-Semitic occurrences in remote areas may not have been communicated to the editors. We feel this would be a more serious issue had we investigated minor anti-Semitic incidents, such as name calling or petty assaults by non-Jews against Jews. But we largely examine serious incidents of anti-Semitism, and thus we feel it is equally likely that such serious incidents were reported across the two countries and over time. Given this emphasis on serious anti-Semitic conduct and the absence of alternative sources of information on popular anti-Semitism, we feel the information contained in the AJYB can serve as a useful tool for examining variation in popular anti-Semitic acts across space and time.²

Still, an examination of anti-Semitic acts alone provides us with a rather limited understanding of anti-Semitism. People may harbor negative feelings toward individuals or groups yet never engage in an explicit action against them. A more thorough investigation of the rise of and societal variation in anti-Semitism requires an empirical assessment of popular attitudes toward Jews. Despite some limitations as a source of historical information, the newsprint medium is a most valuable source of information on popular anti-Semitic attitudes before the Holocaust. Today, we rely largely on survey research to assess people’s racial, religious, gender, and ethnic attitudes, but this information-gathering technique was practically nonexistent before the 1940s. An examination of newspapers provides us with a comparable tool to assess what people were reading about Jews and Jewish issues in our two countries and how the coverage may have differed from country to country and year to year. The years 1899 to 1939 fall within “the golden age of journalism” (Gannon 1971). Gannon reminds us that before the advent of television, for the vast majority of people the newspaper press was the sole purveyor of information about the outside world. Newspapers served as a principal means by which average citizens became informed and by which popular attitudes on numerous issues took shape. Kauders (1996:5) notes that newspapers “also reflect what was read, believed, and called for at the time more closely than many other printed records we have at our disposal,” and newspapers serve as an important resource that enables people to make sense of issues in the news (Gamson 1992).

TABLE 1: Types of Anti-Semitic Acts in Bulgaria and Romania, 1899-1939

	Country		Total
	Bulgaria	Romania	
Type of anti-Semitic act			
1. Laws/acts of discrimination*	4 (9%)	75 (17%)	79 (16%)
2. Laws/acts forcing Jews to leave posts appointments, or lose businesses*	2 (4%)	44 (10%)	46 (10%)
3. Riots with vandalism, destruction of property, physical assault and/or murder	8 (17%)	91 (21%)	99 (21%)
4. Formation of anti-Semitic groups, protest speeches, leafleting	5 (11%)	36 (8%)	41 (9%)
5. Laws/acts against Jewish immigration or naturalization; expulsions, citizenship reversals or deportation*	7 (15%)	36 (8%)	43 (9%)
6. Riots and demonstrations (no violence or vandalism reported)	6 (13%)	46 (11%)	54 (11%)
7. Media attacks	0 (0%)	6 (1%)	6 (1%)
8. Laws/acts against Jewish practices	3 (7%)	20 (5%)	23 (5%)
9. Violent acts on people; murder	6 (13%)	41 (10%)	47 (10%)
10. Raids, confiscations, or shutdowns; dissolved organizations	0 (0%)	8 (2%)	8 (2%)
11. Vandalism or destruction of property	0 (0%)	13 (3%)	13 (3%)
12. False accusations, arrest, or imprisonment	3 (7%)	5 (1%)	8 (2%)
13. Boycotts or strikes	2 (4%)	10 (2%)	12 (3%)
Total	46 (100%)	431 (100%)	477 (100%)

Note: Column percentages are in parentheses. Column percentages do not add up to exactly 100% because of rounding.

Source: *American Jewish Year Book*

* Laws/acts include government laws and mandates as well as acts committed by members of the general public.

* Laws/acts of discrimination include laws and acts that did not fit neatly into other, more specific categories of discrimination. For example, this category includes actions by organizations prohibiting those of “Jewish blood” from taking part in an event. Where more information was provided, we placed laws and acts in the more specific categories (categories 2 through 13).

For these reasons newspapers with large circulation should have played an important function in creating and shaping popular attitudes towards Jews. For each country we examine the daily newspaper with the largest national circulation. We analyze *Universul* in Romania between the years 1899 and 1939 — years

corresponding to the analysis of the *American Jewish Year Book*. For Bulgaria we examine *Utro* for the years 1911, the first year *Utro* was published, through 1939.³

Our sample of newspaper articles consists of all articles from the fifteenth of the month for every month for the years 1899 to 1939 in Romania and 1911 to 1939 in Bulgaria. For each article, native Bulgarian and Romanian speakers read the respective newspapers. The readers identified and noted the date, issue and page number of each article that mentioned Jews or Jewish issues. The information from the article was then coded for anti-Semitic content. We coded whether the article was favorable, unfavorable, or neutral towards Jews and whether the article contained political or economic anti-Semitism.⁴ Our dependent variable 'anti-Semitic attitudes' is the number of articles unfavorable towards Jews in a year in the respective countries (see Table 2 for descriptive information). We also coded whether the article made reference to any political or economic anti-Semitism. An article was coded as containing economic anti-Semitism if its content implicitly or explicitly emphasized alleged negative Jewish economic practices, such as cheating, money lending, profit-making, hoarding, controlling markets and manipulating prices, or Jews were portrayed as avaricious, cheap, or greedy. Political anti-Semitism referred to implicit or explicit emphasis on Jewish political activities, such as associations with Marxism, Bolshevism, Communism, controlling governments, divided loyalties, internationalism, unpatriotic worldwide conspiracy, or as seekers of world domination.

As stated above, we contend that anti-Semitic acts and attitudes should vary with economic conditions, the relative size of the Jewish population, and support for leftist parties, although we stipulate conditions for these associations. We measure economic conditions by gross domestic product (GDP) of the country for a given year. Specifically, we measure GDP as the total Gross Domestic Product per capita for a given year, expressed in units of one thousand. The GDP per capita are in 1990 dollars and are drawn largely from Maddison (1995) and Good and Ma (1998). Bulgarian and Romanian GDP figures are yearly only from 1925 to 1939 but are decennial for the period prior to 1925. For these earlier years, we interpolated the GDP figures based on the nearest preceding and proceeding figures. Our measure of Jewish population size is the percentage of the population that is Jewish in a country for a given year. The AJYB furnishes annual figures of Jewish population for each country between 1899 and 1939. As with GDP, missing data on Jewish immigration were interpolated based on the values of the preceding and proceeding years.

Finally, we measure support for the political left by the percentage of all votes cast for the leftist parties in Bulgaria⁵ and Romania.⁶ All national election results covering the period of 1899 to 1939 for the respective countries have been gathered from Flora (1983), Mackie and Rose (1982), Dogan (1946), Oren (1973), Rothschild (1959), and Kazasov (1949). In off election years, we carried over the figure from the most recent election year.

TABLE 2: Newspaper Coverage of Jews in Bulgaria and Romania, 1911–1939

	Romania	Bulgaria
Article content		
Article generally discusses		
Economic anti-Semitism*	16 (18%)	11 (7%)
Political anti-Semitism*	21 (24%)	15 (10%)
Article is unfavorable towards Jews and discusses		
Economic anti-Semitism*	14 (16%)	8 (5%)
Political anti-Semitism*	15 (17%)	4 (3%)
Article's view on Jews		
Coverage of Jews is*		
Favorable	6 (7%)	24 (15%)
Unfavorable	36 (41%)	10 (6%)
Neutral	46 (52%)	114 (73%)
Could not identify		8 (5%)
N	88	156

Note: Data are missing for the year 1935.

* $\chi^2 p < .05$

Method

We test the relationship between anti-Semitism and our independent variables — economic conditions, size of the Jewish population, and support for leftist parties — using negative binomial regression. Negative binomial models are appropriate because our dependent variables, anti-Semitic acts and attitudes, are counts with highly skewed distributions.⁷ To statistically control for the risk of our outcome variables, we include the number of Jews in the population (logged) as an “exposure factor” using the STATA data analysis program.⁸

Results

Our examination of the *American Jewish Year Book* reveals substantial differences between the two countries with regards to anti-Semitism. For the time period of interest, we tallied 431 anti-Semitic acts for Romania, compared to just 46 in Bulgaria (Table 1). Likewise, the Romanian newsprint portrayed Jews in an unfavorable manner in over 40% of the Romanian articles, compared to 6% of

TABLE 3: Negative Binomial Regression Coefficients for Predictors of Anti-Semitic Acts and Attitudes in Bulgaria and Romania before 1939

	Romania			Bulgaria	
	Acts 1	Attitudes 2	Attitudes 3	Acts 4	Attitudes 5
GDP	-.274* (.131)	-.997* (.317)	-.875* (.304)	.501* (.168)	1.110* (.468)
Jewish population	.136 (.319)	-.221 (.714)	-2.191* (1.033)	.959 (1.378)	2.349 (4.313)
Leftist vote	.135 (.126)	-.168 (.261)	-6.029* (2.735)	.187* (.092)	.339 (.266)
Jewish population * Leftist voting			1.101* (.504)		
Constant	3.749* (2.858)	11.604 (6.306)	22.898* (6.634)	-13.140* (4.231)	-27.033 (14.135)
N	41	41	41	41	28

Note: Standard errors are in parentheses. Analyses for Romania use all available years (1899–1939). The substantive results replicate for “anti-Semitic attitudes” when analyzing 1911–39 and when omitting the year 1935, years for which we had no data from Bulgarian newspapers

* $p < .05$

Bulgarian articles (Table 2). The Bulgarian press, in contrast, wrote about Jews in a favorable context more than twice as often as the Romanian press (15% vs. 7%). Our suggestion that Jews were associated with economic and political problems to a greater degree in Romania than Bulgaria is supported by our content analysis. As depicted in Table 2, newspaper coverage in Romania was about two and a half times more likely to discuss economic or political anti-Semitism than the Bulgarian press. This difference becomes even larger when we examine articles that were unfavorable towards Jews *and* discussed economic or political anti-Semitism.

Models 1 and 4 of Table 3 suggest economic conditions have very different effects in the two countries. As expected, anti-Semitic acts in Romania increased when economic conditions worsened (model 1).⁹ While we had expected no association in Bulgaria, the results in Table 3 indicate a positive association between anti-Semitic acts and economic conditions in Bulgaria.¹⁰ The strong negative association between economic conditions and Romanian anti-Semitic acts is largely in line with our theoretical predictions. Our prediction of a significant interaction between group size and leftist support is not supported for anti-Semitic acts in Romania (results not shown). Yet, we find greater support for this hypothesis

when examining anti-Jewish attitudes. As with anti-Semitic acts, GDP has a significant and positive effect on anti-Semitic attitudes in Bulgaria, yet none of the other predictor variables in either the main effects model or in interaction models show significant effects (see model 5 in Table 3; interaction model not shown). This contrasts sharply with the results from Romania. As with anti-Semitic acts, anti-Jewish attitudes in Romania rise when economic conditions worsen (models 2 and 3 in Table 3). Further, the interaction model suggests the size of the Jewish population significantly increases anti-Semitic attitudes only when support for leftist parties is high (model 3 in Table 3),¹¹ while the effect is negative and weaker when support for leftist parties is low. It appears the size of the Jewish population is important when accompanied by a perceived political threat.

Conclusion

This research sought to advance two objectives. First, we sought to provide a descriptive account of Balkan anti-Semitism prior to WWII. To date, most comparisons of Romanian and Bulgarian anti-Semitism focused on the treatment of Jews during WWII, yet said little of the disparate treatment of Jews in the earlier part of the twentieth century. Our descriptive account suggests vehement anti-Semitism in Romania between 1899 and 1939, yet anti-Jewish sentiments and actions were relatively scant in Bulgaria. We believe this research represents the first empirical research on Romanian and Bulgarian anti-Semitism prior to WWII.

Second, we specified conditions under which Jews are more likely to be singled out as scapegoats during times of social or economic turmoil. We argued that the disproportionate representation of Jews in the middle class in Romania, particularly in positions that control financial resources, rendered Jews as blameworthy for economic deterioration. This notion was supported in our empirical model. Moreover, we find some support for our contention that the size of the Jewish population matters only in places where Jews were associated with subversive political parties and when those parties gain strength. We suggest future work on prejudice and inter-group relations give further consideration not just to the relative size of subordinate groups, but also to the political agenda with which such groups are associated.

In sum, our results suggest changing structural conditions alone are not predictive of anti-Semitism. Rather, where Jews are overrepresented in the middle-class and occupy middleman positions, they are more apt to be singled out in times of economic stagnation or presumably during other social crises. This work may also bear on other aspects of prejudice. In places where minority groups tend to acquiesce to majority group demands, we would not expect scapegoating during turbulent times. When minority groups support agendas at odds with the status

quo, however, prejudice should increase as economic conditions worsen and as numeric representation of the minority group increases.

Notes

1. Though the opinion of most scholars studying anti-Semitism within Bulgaria points to relatively low levels of Bulgarian anti-Semitism, Tamir's (1997) work is a notable exception. Notwithstanding Tamir's assessment, there remains a near consensus among scholars regarding Bulgaria's favorable treatment of Jews.

2. A note regarding the coding process and intercoder reliability is warranted here. Three graduate research assistants coded and classified the anti-Semitic acts from the AJYB. All research assistants received the same training. Initially, one of the research assistants read through the appropriate sections of all 41 volumes of the AJYB, coding acts where appropriate. Thereafter, two different (but trained the same) research assistants re-read the volumes, alternating every other year, to check for missed acts and coding discrepancies. The few mistakes that were found were corrected during the second reading. While most anti-Semitic acts were relatively straightforward, those that were not easily discernable were copied and reviewed by all the coders and, when necessary, the project coordinator. Having read through the volumes of the AJYB twice and having consulted on all potentially difficult cases, we feel that issues of inter-coder reliability were well addressed throughout the research process.

³ Information on newspaper circulation comes from published volumes of *Editor and Publisher International Yearbook*, which is the most authoritative industry reference guide. We also referred to the volumes of the *Newspaper Press Directory* for information on the newspapers' circulation, political identification, ownership, and origins.

4. Coders assigned an unfavorable orientation to an article if the author's tone was clearly anti-Semitic. Conversely, if the author of the article spoke in defense of Jews, then the article was coded as favorable. If the article simply reported on an event without taking a side, the article was assigned a neutral tone. We also coded whether the article contained political, religious, racial or economic anti-Semitism, and a batch of questions indicating whether Jews were perceived as having too much power in society or seen as deviant or criminal (see Brustein 2003: Appendix A for questionnaire). We do not present these descriptive results here, but they are available from the authors upon request.

5. Leftist support in Bulgaria included votes for the Social Democratic Party, the Socialist Party, the Communist Party, and the Worker Party.

6. Leftist support in Romania included votes for the Social Democratic Party, the Socialist Party, and the Worker and Peasant Bloc.

7. The AJYB and newspaper data in both countries include many zero counts and are too skewed for Ordinary Least Squares regression.

8. The STATA output does not provide estimates for the exposure factor, and thus it is not reported in this analysis. This exposure factor was included in all models presented here.

9. While the coefficient for size of the Jewish population (measured as a percentage of total population) is negative in models 1 through 3, the bivariate associations between the outcome variables and Jewish population size were positive.
10. Subsequent analysis suggests a sizeable number of acts occurred in the later years (1935–39). During these years the alliance with Hitler's Germany developed and, contemporaneously, there was a sharp increase in GDP. When controlling for the years 1935–39 GDP was statistically nonsignificant in our model for Bulgaria.
11. This model is for the years 1899–1939. Findings for anti-Semitic attitudes replicate when examining the period 1911–39, the years for which we obtained data from the Bulgarian newspaper. To interpret the interaction effect we examined the effect of Jewish population size when leftist support was low (approximately one standard deviation below the mean) and when leftist support was high (approximately one standard deviation above the mean). The mean and standard deviation for leftist voting in Romania were 2.53 and 1.47, respectively. When leftist voting was low the effect of Jewish population size was -1.09 ($-2.191 + 1.101[1] = -1.09$), and when leftist voting was high the effect was $+2.213$ ($-2.191 + 1.101[4] = 2.213$).

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Military Service during the Vietnam Era: Were There Consequences for Subsequent Civilian Earnings?*

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Abstract

Using longitudinal data gathered in the National Longitudinal Study of Young Men spanning the years from 1966 to 1981, I examine the relationship between military service and subsequent income earned in the civilian labor market. Through the use of fixed-effects estimators, I am able to generate estimates of the effects that are independent of unmeasured family-specific and person-specific factors that might bias the relationship. The use of longitudinal data also allows for the construction and comparison of earning trajectories for veterans and nonveterans. The results indicate that veterans have earning profiles that differ from those of nonveterans. In particular, after leaving military service, veterans who were drafted earn less than nonveterans, but this difference erodes over time because veterans have a steeper earning profile. Within less than ten years of discharge there is no statistically significant difference between the earnings of veterans and those of nonveterans.

The war in Vietnam marks the last time in which there was a substantial buildup of wartime military personnel and the last time that the draft was used to supplement military enlistments in the U.S. Because of age-related mortality among veterans of World War II, there are now more surviving veterans of the Vietnam conflict than of any other military conflict (U.S. Bureau of the Census 2000). Currently, Vietnam-era veterans constitute more than 30% of the more than 26 million veterans in the U.S. Yet there is surprisingly little research that details the life-course consequences of military service during Vietnam. The purpose of this article is to examine the effect of Vietnam-era military service on subsequent civilian earnings.

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Prior Literature

There is a reasonably large body of literature that has consistently documented a positive relationship between military service during World War II and subsequent civilian earnings (DeTray 1982; Fredland & Little 1980, 1985; Goldberg & Warner 1987; Little & Fredland 1979; Martindale & Poston 1979; Sampson & Laub 1996; Villemez & Kasarda 1976). The literature on veterans of the Vietnam era is equally consistent in finding an effect of military service on subsequent earnings, but in this case the effect is negative (Angrist 1989, 1990; Card 1983; Martindale & Poston 1979; Rosen & Taubman 1982; Schwartz 1986; Teachman & Call 1996; Villemez & Kasarda 1976). The overall negative effect of military service during Vietnam notwithstanding, other research has documented variation in the economic impact of service during that era. At least two studies have found that being drafted further decreased the earnings of Vietnam-era veterans (Card 1983; Hirsch & Mehay 2003). On the other hand, a positive impact of service during this era has been noted for blacks (Angrist 1989; Martindale & Poston 1979) and less well educated men (Berger & Hirsch 1983; Rosen & Taubman 1982), the same groups that benefited most from service during World War II (DeTray 1982; Elder 1987; Elder & Caspi 1990; Little & Fredland 1979; Villemez & Kasarda 1976). Thus, the impact of military service on subsequent economic performance appears to depend not only on historical context, but also on preexisting characteristics of veterans.

Despite the evidence, prior literature on the effects of military service on subsequent outcomes is confounded by two major problems. First, any effects observed are not likely to be constant across the life course. The relationship between military service and performance in the civilian labor force appears to depend on how much time has elapsed since discharge from active duty (Magnum & Ball 1989; Phillips et al. 1992; Xie 1992). For example, Rosen and Taubman (1982) find a statistically significant 19% earning penalty for Vietnam veterans when using longitudinal data (up to 1972) but a nonsignificant 10% difference when using 1972 cross-sectional data. This pattern suggests that the effect of military service during the Vietnam era may be initially negative but becomes less negative over time as veterans readjust to civilian life. Berger and Hirsch (1983:455) note that "Vietnam-era veterans exhibited longitudinal earning profiles which were initially lower but steeper than those of nonveterans," eventually yielding little overall difference between the two groups. Failure to account for differences in earning trajectories between veterans and nonveterans can therefore blur or accentuate the distinction between the two groups as a result of when in the life-course income is measured.

Second, men who enter the military are not a random subset of all men. In particular, veterans may possess characteristics, particularly unmeasured characteristics, that affect their earning potential and which distinguish them from nonveterans. In this case, an effect of one or more of these unmeasured characteristics may be falsely attributed to military service. Certainly, such an

assumption is plausible, since veterans are closely screened for minimum standards of health and intellectual capacity that may be difficult to measure in surveys and that may be tied to success in the civilian labor market (Eitelberg et al. 1984).¹ Indeed, after controlling for unmeasured selectivity using an instrument for veteran status reflecting the likelihood of conscription based on date of birth (position in the World War II draft was assigned chronologically according to date of birth), Angrist and Krueger (1994) find that World War II veterans earned no more than nonveterans. Similarly, for the Vietnam era, Angrist (1989, 1990) finds that a null effect of veteran status becomes a statistically significant negative effect after implementing a draft-based instrument designed to control for selectivity. Angrist's results indicate that failure to account for selectivity can lead to seriously biased estimates of the effects of military service on subsequent earnings.

In ascertaining the effect of military service during the Vietnam era on civilian earnings, I take both these confounding issues into account. That is, I compare the income trajectories of veterans and nonveterans while taking into account the potential effect of unmeasured selectivity. I also examine the effect of military service as it may differ according to a variety of preexisting characteristics. These characteristics include race and level of education at entry into the military. In addition, I consider variations in the effect of veteran status as they occur according to age at entry into the military and draft status.

Theoretical Perspectives

THE LIFE-COURSE PERSPECTIVE

Life-course research focuses on patterns of major life events that vary in synchronization and are determined by the timing, spacing, and sequencing of events in multiple domains of the life course (e.g., education, marriage, work) and vary across both time and space (Elder 1996; Settersten & Mayer 1997). Clearly, military service is a significant event that is placed differently in the life-course trajectories of men both within and across cohorts. The basis of the life-course argument is that military service, particularly during a time of war, is a demanding and unique activity that interrupts normal progress through age-graded institutions such as schools and the labor force. Thus, life-course research emphasizes the notion of disruption in the normal life-course patterns of men. The assumption is that the most substantial consequences of military service will accrue to those men whose lives are most severely interrupted by removal from civilian pursuits.

Central to the notion of disruption in the life course associated with military service is age. Age is important to consider because many social institutions are heavily graded by age (Foner & Kertzer 1978; Hogan & Astone 1986), and the military generally removes individuals from access to these institutions. At earlier ages, when expectations about life-course trajectories are less well formed and role

transitions are more amorphous (Rindfuss, Swicegood & Rosenfeld 1987), military service may be less consequential because investments in educational, occupational, and personal relationships are minimal. At older ages, however, investments in civilian relationships and careers are more substantial, making military service potentially more disruptive and therefore harmful. Previous research on World War II veterans indicates that military service at older ages had more detrimental effects on subsequent civilian life (divorce, educational attainment, socioeconomic status) than military service at younger ages (Elder 1987; Pavalko & Elder 1990; Sampson & Laub 1996).

Draft status may also be taken as an indicator of degree of disruption in the life course, assuming that veterans who are drafted are, on average, less likely to have desired or planned a tour of duty in the military than other veterans and thus more likely to have experienced some form of disruption in their life course. This is an important point to consider in the light of substantial resistance to the war in Vietnam (particularly after 1967) and the generally negative view attributed to military service at the time (Frey-Wouters & Laufer 1986), a situation that likely heightened any negative consequences of unwanted and unexpected service by ensuring that draftees were generally the men least willing to serve. About one quarter of Vietnam-era veterans entered the military via the draft (and an unknown proportion may have "voluntarily" enlisted because of impending conscription).²

It is not apparent, though, that the effects of a disruption in the life course will have permanent effects. Indeed, some authors (Berger & Hirsch 1983; Phillips et al. 1992; Xie 1992) have suggested that the effects of disruption in the life course associated with military service are transitory, representing a source of friction in civilian labor-market careers that creates only a temporary barrier for veterans as they leave active duty. With time, however, affected veterans are able to repair severed economic ties, rebuild social networks crucial to finding good jobs, and gather needed information about labor-market conditions in order to make appropriate job search decisions. As a result, veterans most negatively affected by their military service are eventually able to catch up with their civilian counterparts.³

THE STATUS-ATTAINMENT AND SOCIAL-CAPITAL PERSPECTIVES

Status-attainment research describes the basic processes of achievement and social mobility (Blau & Duncan 1967). Military service within the status-attainment perspective is usually viewed as a contingency that moderates the basic processes of status attainment. That is, military service acts as a point of intersection in the process of attainment, altering the returns to various ascribed and achieved statuses.

The role of military service as a contingency or moderator can be seen in research identifying minorities and men with less education as benefiting more than other men from time spent in the military (Angrist 1998; Berger & Hirsch 1983; Bryant, Samaranayake & Wilhite 1993; DeTray 1982; Martindale & Poston

1979; Villemez & Kasarda 1976; Xie 1992). Extending the notion of contingency beyond standard measures of ascribed and achieved statuses, Sampson and Laub (1996) found that military service in World War II was more beneficial for men with a history of delinquency and criminal conviction. In each case, military service is seen as a change agent altering the basic processes of status attainment. Specifically, because it removes men from resource-poor surroundings and provides them with resources and a more uniform field of opportunity, military service acts to benefit men who are otherwise disadvantaged by giving them a sense of opportunity that they would not otherwise have and removing them from environments where socioeconomic contexts detract from making positive labor-market choices.

Thus, as in the life-course perspective, the underlying notion of a contingent effect rests on the assumption that military service represents a change in life direction, a means by which a different path is taken. However, in the status-attainment perspective the possibility of a contingency is not limited to placement within a given part of the life course (as indexed by age, for example) or the notion of disruption in the life course. Rather, the contingent effect rests on placement in the larger pattern of stratification and in most instances represents an opportunity for men to overcome the limitations imposed by a deprived or turbulent background (Sampson & Laub 1996).

A recent extension of the status-attainment perspective comes in the conceptualization of social capital (Coleman 1988; Lin 1999; Portes 1998). Social capital is often not easy to define, but for my purposes it may be taken to entail social resources (as opposed to financial resources or human-capital resources) that can be brought to bear in the attainment process. Some authors, using the term "bridging environment," have argued that the military provides social capital by generating lessons about the value of discipline and responsibility, and for minorities an ability to understand and operate in a majority, bureaucratic environment (Fredland & Little 1980, 1985; Lopreato & Poston 1977; Martindale & Poston 1979; Xie 1992). In a related vein, DeTray (1982) argues that veteran status provides employers with an easily observed proxy for this store of social capital, a proxy that is most beneficial to veterans who would otherwise be disadvantaged in the labor market.

The status-attainment and social-capital perspectives imply a more permanent effect of military service on subsequent earnings, one that is not limited to the effects of a temporary disjuncture in the progress of a life course. Instead, the social and psychological resources imparted by military service represent generalizable resources useful at all points in a career. Moreover, these resources likely impart a degree of success in the labor market that sets in motion a pattern of cumulative advantage that carries forward in time.

THE HUMAN-CAPITAL PERSPECTIVE

The human-capital perspective (Becker 1993) is likely the most consistently used framework for explaining the effects of military service on subsequent attainment, emphasizing two countervailing aspects of military service — reduction of civilian labor-market experience and the accumulation of occupational training that may be transferred to the civilian occupations. Standard economic models view labor-market experience as a prime determinant of earnings (Willis 1986); individuals with more experience in the labor market accrue higher wages. Thus, because military service removes individuals from the labor market, reducing their experience relative to that of nonveterans, a negative impact on wages is predicted (Angrist 1998; Bryant & Wilhite 1990). This negative effect is likely to be more substantial early in the life course, however, when accumulations of labor-market experience are relatively small and a few years spent in the military represents a substantial fraction of potential of labor-market experience. Thus, when young veterans return to the civilian labor market, they are at a disadvantage in relation to their nonveteran counterparts. As time progresses, however, the comparative disadvantage becomes smaller, suggesting that the veteran–nonveteran difference in earnings should shrink over time.

The human-capital perspective also argues that the military can serve as a means of obtaining skills and experience that can substitute for civilian labor-market experience. In part, this effect may be the result of a screening process used by employers, whereby veteran status indicates a certain degree of mental and physical preparedness for work in a structured environment (DeTray 1982). Research also suggests that some types of military training (particularly those not related to combat arms) can transfer to civilian markets (Magnum & Ball 1989), resulting in a positive effect on earnings for veterans of World War II (Fredland & Little 1980, 1985; Goldberg & Warner 1987), as well as later cohorts of veterans (Bryant & Wilhite 1990; Bryant, Samaranayake & Wilhite 1993; Goldberg & Warner 1987; Magnum & Ball 1989). Intersecting with the status-attainment perspective, the human-capital perspective suggests that variations in the effect of veteran status according to race and education (or other characteristics indicating disadvantaged status) occur because minorities and men with less education are more likely to receive training and experience in the military that they would not receive in the civilian labor market. And, as in the life-course perspective, the skills imparted by military training are likely to generate an increment in income that is more or less permanent.

Although draftees of the Vietnam era generally served shorter enlistments than other veterans (on average two years versus three to four years), yielding on average slightly less disruption in the accumulation of civilian labor-market experience, the shorter enlistment period means that draftees were less likely to receive training in skills transferable to a civilian job.⁴ The lack of the training that could be used to compensate for the loss of labor-market experience may have made draftees

particularly vulnerable to the negative effects of military service associated with loss of time in the civilian labor market. Again, however, the negative effect is likely to have dissipated over time as draftees reentered the civilian labor market and accumulated experience necessary to compete with nonveterans and veterans who received transferable skills.

Data and Model

DATA

I make use of data taken from the National Longitudinal Study of Young Men (NLSYM). Some 5,225 men 14 to 24 years old were initially interviewed in 1966 and are representative of all civilian noninstitutionalized men of this age (with an oversampling of blacks). These men were interviewed 12 times over a period of 16 years (until 1981), when they were 29–39 years old. In order to follow young men from (approximately) the time they become eligible to serve in the military and move into the civilian labor market, I focus on men born between 1948 and 1952 (14–18 years old in 1966, 29–33 in 1981). I exclude a few men ($N = 5$) from these birth cohorts who report that they were already veterans by 1966. I also exclude the few men ($N = 53$) who do not report their race as either white or black. These restrictions result in a sample of 2,782 men.

The NLSYM is a household survey, and all eligible members of a sampled household are interviewed. Accordingly, there are a number of brother pairs (or sometimes three or more brothers) in the data used for this article. There are 386 households in the NLSYM that have two respondents, 28 households that have three respondents, and 12 households that have four respondents. In all, 868 of the 2,782 men (31%) have at least one sibling in the survey. As I describe below, I make use of this information to control for unmeasured household-specific factors that might bias the relationship between veteran status and earned income.

From these data, starting in 1966, I form a database consisting of person-years, where respondents contribute a person-year for each round of the NLSYM in which they were at least 16 years old and reported wage income in the civilian labor market. Respondents do not contribute person-years to the data base during years in which they were under the age of 16, were on active duty in the military for at least part of the year, were unemployed for the entire year, or otherwise engaged in some activity (such as being a full-time student) that kept them from earning income in the civilian labor market. Respondents who are lost to follow-up, either because they cannot be tracked or because of reductions in the sampling frame of the NLSYM, contribute person-years until they exit the survey.

For each person-year, I record several time-varying characteristics of the respondent, including current veteran status and wage income. Characteristics of military service are measured in the NLSYM using a set of retrospective questions

embedded in various rounds of the survey that allow me to determine whether a respondent had ever served in the military, whether he entered the military via the draft, and at what age he entered the military. In addition, for each person-year, I use information gathered about income earned from salary and wages during the past year.⁵ I model the inflation-adjusted natural logarithm of earnings (in order to reduce a substantial right-skew in the data) as a function of veteran status and other time-varying characteristics.

MODEL

The model I estimate, following Allison (1994), is of the following general form $\ln(Y_{iht}) = u_0 + u_1 \text{Age}_{iht} + u_2 \text{Age}_{iht}^2 + \delta_1 X_{iht} + \delta_2 (X_{iht} * W_{iht}) + \gamma W_{iht} + \alpha_i + \tau_h + \epsilon_{iht}$ where i indexes the individual respondent, h indexes the household from which the individual respondent comes, and t indexes the person-year under consideration. The 12 values of t (one for each round of the survey) run between 1 and 16, corresponding to the place in the sequence of years from 1966 (e.g., 1 indicates data taken from 1966, 3 indicates data taken from 1968, 16 indicates data taken from 1981). The value of i for a given t depends upon the number of respondents who contribute an observation at that value of t . The value of h depends on the number of households that contribute an observation at that value of t . In total, 20,270 person-years are analyzed. Y_{iht} indicates the wage and salary income that respondent i from household h earned in year t ; u_0 is a constant term; age_{iht} indicates the age of the respondent in person-year t (age_{iht}^2 is the square of age); X_{iht} is a dummy variable indicating whether the respondent is a veteran; W_{iht} is a vector of time-varying characteristics (including characteristics of military service);⁶ u_1 , u_2 , δ_1 , δ_2 , and γ are coefficients or vectors of coefficients, α_i represents unobserved and constant person-specific differences across respondents that affect earned income, τ_h represents unobserved and constant household-specific differences across households that affect earned income, and ϵ_{iht} is an error term.

The model does not include any fixed (unchanging) characteristics of respondents or households, because I estimate coefficients using a fixed-effects procedure. As a consequence, the effects of any constant person-specific characteristics are absorbed within the person-specific factors, α_i , and the effects of any constant household-specific characteristics are absorbed within the household-specific factors, τ_h . The fixed-effects model can be estimated by including a set of dummy variables corresponding to each of the respondents (less one) and a set of dummy variables corresponding to each of the households (less one). Alternatively, one can create a set of deviation scores (measured as the deviations from the mean for that variable over time and households) for all variables in the model, and then use these deviation scores in the regression. I use the second procedure because of its greater efficiency. I use PROC GLM in SAS to accomplish this task.

As Allison (1994) discusses, the fixed-effects model is a powerful tool in examining the effect of an event, here military service, on subsequent outcomes.

The power of the fixed-effects model rests in the fact that it controls for all stable individual-level and household-level characteristics that might bias the relationship between veteran status and earned income (i.e., the fixed-effects estimator does not, like the random-effects estimator, assume that α_i and τ_h are independent of the measured variables included in the model). In particular, the potential for bias associated with selectivity into the military is considerably reduced, as long as such selectivity is based on stable characteristics tied to individuals and households. These stable characteristics could include factors such as intellectual ability, motivation, health, family history and tradition, ability to work with others, and so on.

I estimate the fixed-effects model using weighted data because the NLSYM used a complex cluster-sampling scheme to select respondents. In addition, weights are necessary to correct for differential rates of sample attrition. Standard errors are adjusted for the weighting procedure implemented (because the use of weights can introduce heteroskedasticity) using a GEE (generalized estimating equations) algorithm (Liang & Zeger 1986).⁷

As noted, the dependent variable is the logarithm of earned income during a particular year and adjusted for inflation (using the 1982–84 average as the base). The major independent variable is a dichotomy, indicating whether in a particular year the respondent is a veteran (1 = veteran, 0 = otherwise). I also include a variable indicating the number of years since discharge (0 for nonveterans). Following standard treatments of the determinants of earned income for this era (Blau & Duncan 1967; Featherman & Hauser 1978), I include a number of important time-varying control variables, including age in years, the level of education obtained (measured in years) by the respondent as of a given year, whether he is enrolled in school at some point during the year (1 = yes, 0 = no), the unemployment rate of the labor market in which he is located, and whether he is married or postmarried (in both cases, 1 = yes, 0 = no). I also include an indicator of below-average educational attainment (1 = less than high school graduation, 0 = high school diploma or more). In order to account for veterans' preferences in hiring at all levels of government, which may lead to higher levels of income, particularly for minorities and men with less education, I include a control for employment in the public sector (1 = employed in the public sector, 0 = otherwise). Variation in labor-market experience is accounted for by including a time-varying indicator of the cumulative number of years a respondent reported nonzero income in the civilian labor market (income received in the military does not count).

I include four indicators of potential variation in the effects of veteran status: whether the veteran is black, the age at which he entered the military, whether he entered the military via the draft, and whether he had less than a high school degree when he entered. Prior research and theory leads to the expectation that the veterans most likely to benefit from military service are those who are black, enter the military at an earlier age, enter the military voluntarily, and have less education (here measured as having less than a high school degree).

TABLE 1: Descriptive Statistics for a Sample of Respondents Drawn from the NLSYM — Men Born 1948–1952

	1966	1967	1968	1969	1970	1971
Percentage veteran	.00	.10	.50	1.94	5.73	12.62
Percentage veterans drafted	—	—	5.13	1.11	29.23	35.67
Nonveterans						
Yearly earned income	2,171	3,744	4,751	6,440	78,003	9,718
Log of yearly earned income	7.17	7.78	7.96	8.30	8.55	8.77
Years of labor-market experience	1.0	1.88	2.69	3.51	4.37	5.22
Age	17.06	17.99	18.40	19.15	20.16	21.20
Years of schooling	10.43	11.16	11.45	11.90	12.31	12.68
Less than h.s. education	78.81	56.16	46.63	30.89	17.87	15.53
Enrolled in school	83.20	71.00	64.31	54.01	41.26	33.11
Employed in public sector	1.65	1.87	2.09	2.23	2.95	3.67
Unemployment rate	5.75	5.79	5.75	5.77	5.71	5.64
Married	1.59	4.68	9.10	4.13	22.43	33.67
Postmarried	0.00	0.00	0.01	0.33	1.89	2.43
N	1520	1503	1891	1826	1702	1599
Veterans						
Yearly earned income	—	—	8,420	9,135	9,745	10,865
Log of yearly earned income	—	—	8.87	8.89	8.96	9.00
Years of labor-market experience	—	—	2.65	3.14	3.59	4.24
Age	—	—	8.90	20.17	21.13	22.04
Years of schooling	—	—	11.53	12.01	11.94	12.05
Less than h.s. education	—	—	2.46	17.31	16.36	14.41
Enrolled in school	—	—	4.13	26.71	21.36	23.6
Employed in public sector	—	—	15.28	7.17	3.88	4.38
Unemployment rate	—	—	6.47	5.59	5.81	5.92
Married	—	—	4.58	2.36	32.61	44.25
Postmarried	—	—	.00	.00	.00	2.58
Years since discharge	—	—	1.00	1.40	1.51	1.70
Age entered military	—	—	17.30	17.91	18.27	18.57
Black	—	—	0.00	0.00	6.72	10.96
N	0	1	8	31	91	213

The measure of draft status is based on a question asking respondents how they entered the military. The vast majority of men responded by noting that they entered via the draft or by enlistment (a handful listed ROTC or some other means of entering the military).⁸ It is possible that an unknown proportion of men who entered the military by enlisting did so because they were about to be drafted. It is

TABLE 1: Descriptive Statistics for a Sample of Respondents Drawn from the NLSYM — Men Born 1948–1952 (cont'd)

	1973	1975	1976	1978	1980	1981
Percentage veteran	25.71	30.90	33.90	34.40	34.96	34.81
Percentage veterans drafted	29.44	26.04	25.26	25.19	24.08	23.23
Nonveterans						
Yearly earned income	14,165	16,116	17,647	20,178	20,233	20,555
Log of yearly earned income	9.29	9.44	9.55	9.73	9.72	9.71
Years of labor-market experience	6.17	7.12	8.11	9.01	9.95	10.77
Age	23.18	25.17	26.19	28.19	30.20	31.16
Years of schooling	13.35	13.62	13.76	13.91	14.01	14.01
Less than h.s. education	12.57	12.13	12.60	11.54	9.94	10.52
Enrolled in school	19.74	12.55	10.56	8.29	7.79	7.35
Employed in public sector	4.29	5.28	5.09	6.15	6.30	6.31
Unemployment rate	5.67	5.69	5.62	5.61	5.71	5.81
Married	47.87	57.69	61.39	64.81	67.30	67.41
Postmarried	4.64	7.63	8.61	11.03	12.43	13.79
N	1,421	1,257	1,156	1,056	977	969
Veterans						
Yearly earned income	14,705	16,068	16,577	20,041	20,321	20,644
Log of yearly earned income	9.36	9.45	9.49	9.75	9.76	9.77
Years of labor-market experience	4.63	5.45	6.30	7.71	8.00	8.86
Age	23.77	25.63	26.55	28.54	30.54	31.55
Years of schooling	12.43	12.76	12.94	13.20	13.23	13.26
Less than h.s. education	11.22	8.66	8.79	6.97	7.28	7.68
Enrolled in school	14.99	19.13	15.36	11.53	12.35	8.51
Employed in public sector	6.75	10.17	10.41	11.96	13.17	13.96
Unemployment rate	5.54	5.58	5.61	5.49	5.62	5.62
Married	57.06	63.03	67.51	72.09	73.68	74.43
Postmarried	6.26	8.68	9.32	11.28	12.57	14.74
Years since discharge	2.61	4.10	4.94	6.66	8.61	9.57
Age entered military	18.52	18.67	18.62	18.74	18.73	18.70
Black	11.43	11.24	11.29	11.17	10.70	11.61
N	452	524	553	530	499	491

also possible that an unknown proportion of men who entered the military via the draft did so willingly. Thus, the draft variable may not cleanly distinguish men who entered the military voluntarily. Accordingly, the effect of this variable is likely to be attenuated by the extent to which any negative effects of being drafted are mistakenly associated with voluntary enlistment.

DESCRIPTIVE STATISTICS

Table 1 shows descriptive statistics for the sample according to person-year. These results are based on the 20,270 person-years for the 2,782 respondents being examined. There are several points that should be noted about the person-year data. First, the number of person-years first increases and then decreases. The increase arises because more respondents reach the age of 16 and subsequently enter the civilian labor market and report earnings. The subsequent decrease arises from men entering the military (where they have no civilian earnings) and men becoming lost to follow-up (either because they refuse to participate or cannot be located). Second, as nonveterans enter the military and become veterans, the number of nonveterans necessarily decreases (the number of veterans also decreases after 1976 but only because of sample attrition).

The first row of Table 1 indicates the rapid rise in the percentage of men among the birth cohorts studied who become veterans in the early 1970s. Between 1969 and 1976, veterans increased from about 2% of the sample to about 34% of the sample. This increment corresponds to the very strong demands of the war in Vietnam for military recruits and the pressure of the draft. Indeed, as seen in row 2, the percentage of veterans who noted that they entered the military via the draft increased sharply through 1971, after which there was a slow and steady decline (draft quotas declined sharply after 1971 and ended in 1973).

The remaining two panels of Table 1 indicate differences between nonveterans and veterans on the time-varying covariates used in the analysis. These differences reflect the different paths that veterans and nonveterans follow in their early adult trajectories. Veterans initially earn more in the civilian labor market, but this advantage slowly disappears, and after 1971 there is no longer a veteran advantage of note. In part, this pattern is likely due to the fact that in earlier years, veterans are older than nonveterans (on the order of about .75 to 1.0 years between 1968 and 1971), a difference that declines, but does not completely disappear, in later years. Despite being slightly older, the data indicate that Vietnam veterans accumulated fewer years of labor-market experience than nonveterans.⁹ Initial differences are small (because all respondents are young and nonveterans are likely to be in school), but by 1981, veterans report a deficit of nearly two years of labor-market experience.

Similarly, veterans had initially completed more education than nonveterans (again because they are older), a difference that reverses after 1969. Veterans are substantially less likely to be enrolled in school through 1973, after which they are more likely to be enrolled (likely because they began to make use of GI Bill benefits to obtain training and education as civilians).

At all points in time, veterans are much more likely than nonveterans to be employed in the public sector (generally about twice as likely), and they tend to live in areas with rates of unemployment similar to those for nonveterans. That veterans take on some adult statuses more rapidly than nonveterans is reflected in

the fact that at all years veterans are more likely to be married. Veterans are also slightly more likely to be postmarried, but this may simply be a reflection of the fact that they are more likely to be married in the first place. As one would expect, as time passes, years elapsed since discharge increases, as does the average age of entry. The percentage of veterans who are black increases sharply through 1971, although this may simply be a reflection of the small number of veterans prior to 1971 and the fact that blacks are a minority of the sample.

Multivariate Results

Results from estimating fixed-effects models are shown in Table 2. Model 1 includes the indicator of veteran status and a quadratic function of age (given that earned income generally increases with age but not in a linear fashion). Because a semi-log function is used, exponentiation leads to estimates of effects that can be interpreted in terms of percentage change (after subtracting 1.0 and multiplying by 100) in earned income. For example, in Model 1, the effect of being a veteran is $-.026$ across all years covered in the sample. Exponentiation yields an estimate of $\exp(-0.026) = .974$, meaning that veterans earn about 2.6% less ($[e^{-0.026} - 1] * 100 = -2.6$) than nonveterans (an effect that is marginally significant at $p < .10$). The effect of age is not linear with the coefficients indicating that civilian income increases with age but at a declining rate.

Model 1 shows results that are generally consistent with prior research. That is, a negative effect on income of military service during the Vietnam era. This effect occurs net of unmeasured person- and family-specific factors that might affect performance in the labor market. The effect does not allow for differences in income trajectories, however, and is constrained to be equal across all years covered by the sample. Model 2 relaxes this assumption and allows for differences in income trajectories by allowing the effect of being a veteran to vary according to years since discharge. In this model, and all subsequent models that includes years since discharge, the effect of the variable *veteran* refers to the year after discharge, and the effect of the variable *years since discharge* indicates how this initial effect varies across time. In model 2, the negative effect of being a veteran in the year after discharge is statistically significant ($p < .05$) and much larger (an 8.9% deficit in income) than the overall effect registered in model 1. Model 2 indicates that the veteran effect varies across time becoming less negative, however, as veterans readjust to civilian life. Compared to nonveterans, the results in model 2 imply that after discharge Vietnam-era veterans experience a yearly rate of income growth that is 1.3% ($[e^{.013} - 1] * 100 = 1.3\%$) greater than that experienced by nonveterans. This pattern implies that after about 7 years ($8.9/1.3 = 6.8$ years) the effect of being a veteran would switch from negative to positive.

TABLE 2: Fixed-Effect Regression Models Predicting the Logarithm of Earned Income for a Sample of Respondents Drawn from the NLSYM — Men Born 1948–1952

	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Veteran	-.026*	-.093**	.062	.086**	.140**	.182**
Age	.939**	.953**	.824**	.446**	.438**	.438**
Age ²	-.016**	-.064**	-.016**	-.008**	-.008**	-.008**
Years since discharge		.013**	.013**	.011**	.011**	.003
Years of labor-market experience			.117**	.076**	.081**	.081**
Years of schooling				.056**	.056**	.056**
Less than high school				-.264**	-.261**	-.260**
Enrolled in school				-.578**	-.579**	-.579**
Employed in public sector				.216**	.215**	.217**
Unemployment rate				-.016**	-.017**	-.017**
Married				.300**	.300**	.301**
Postmarried				.152**	.150**	.151**
Black * veteran					.032	.032
Age enter * veteran					-.018	-.018
Less than high school * veteran					.025	.034
Draft * veteran					-.149**	-.309**
Draft * veteran * years since discharge						.029**
R ²	.66**	.66**	.70**	.70**	.70**	.70**

* .10 < p < .05 ** p < .05

Model 3 adds a control for differences between veterans and nonveterans in cumulative labor-market experience. The inclusion of this control renders the effect of being a veteran positive (0.062 or about 6.4%) and nonsignificant. After discharge, the income trajectory of veterans remains steeper than that of nonveterans (by about 1.3% for each year after discharge). Each additional year of labor-market experience shifts income upward by 12%. These results suggest that the income deficit veterans experience at the time of discharge can be attributed to the reduction of labor-market experience associated with their time spent in the military.

Model 4 adds control variables to Model 3: years of schooling obtained, an indicator of having obtained less than a high school education, an indicator of whether the respondent is enrolled in school, an indicator of whether the respondent is employed in the public sector, the unemployment rate of the labor market in which the respondent is employed, and indicators of whether the respondent is married or postmarried. In this model, the effect of being a veteran in the year after discharge becomes larger and statistically significant, indicating a veteran premium of about 9% at time of discharge, a premium that grows by about 1%

per year. Net of the background characteristics and cumulative labor-market experience, model 4 indicates that veterans actually earn more than nonveterans.¹⁰

The coefficients for the control variables indicate that for each additional year of labor-market experience respondents earn nearly 8% more, and each additional year of schooling completed increases incomes by about 6%. Respondents who have not completed high school earn about 25% less than respondents with at least a high school education, and respondents enrolled in school earn about 44% less than respondents not in school. Earnings are higher for respondents employed in the public sector (about 24%), as well as those who are married (about 35%) or postmarried (about 16%). Each additional percentage point in the rate of unemployment is linked to a 1.6% decline in income.

In model 5, the effect of veteran status is allowed to vary according to race (black versus white), age at which military service began, means of entering the military (draft versus other), and having less than a high school education at time of entry. The effect of veteran status in the year after discharge remains positive and statistically significant (a 14% premium in income), and veterans continue to have a steeper income profile than nonveterans (1.1% increase per year). The effects of the control variables are largely unchanged from those in model 4. The effect of veteran status does not vary according to race, age at which the respondent entered the military, or lack of a high school education. These results do not provide any support for the bridging hypothesis for Vietnam-era veterans. The effect of being drafted is statistically significant, however. According to the results in model 5, net of background factors and differences in labor-market experience, veterans who were drafted earn less than veterans who were not drafted. Moreover, the effect of being drafted is sufficiently large to yield an overall negative effect compared to nonveterans for the year after discharge ($[e^{(0.140 - 0.149)} - 1] * 100 = -.9\%$).¹¹

I next considered whether the effect of any of the interactions with veteran status (race, age at entry, having less than a high school education, and being drafted) varied according to years since discharge (i.e., whether there were differences in income trajectories). The results indicated a single significant interaction, that involving being drafted. This additional interaction is shown in model 6. In this model, the main effect of being drafted remains negative compared to other veterans ($[e^{(0.182 - 0.309)} - 1 = -11.9\%]$) but becomes less negative each year after discharge ($[e^{(0.003 + 0.029)} - 1 = 3.3\%]$). In addition, the main effect of years since discharge is reduced to nonsignificance, indicating that the steeper income profile for veterans compared to nonveterans indicated in model 5 is limited to draftees.

The overall picture that emerges is that net of background characteristics and loss of labor-market experience the negative effect of being a veteran during the Vietnam era is restricted to draftees. In the year immediately after discharge, draftees are at a disadvantage in the civilian labor market. However, they experience a more rapid gain in income than nonveterans and begin to close the gap after a few years. When prior labor-market experience is controlled, veterans who were not drafted

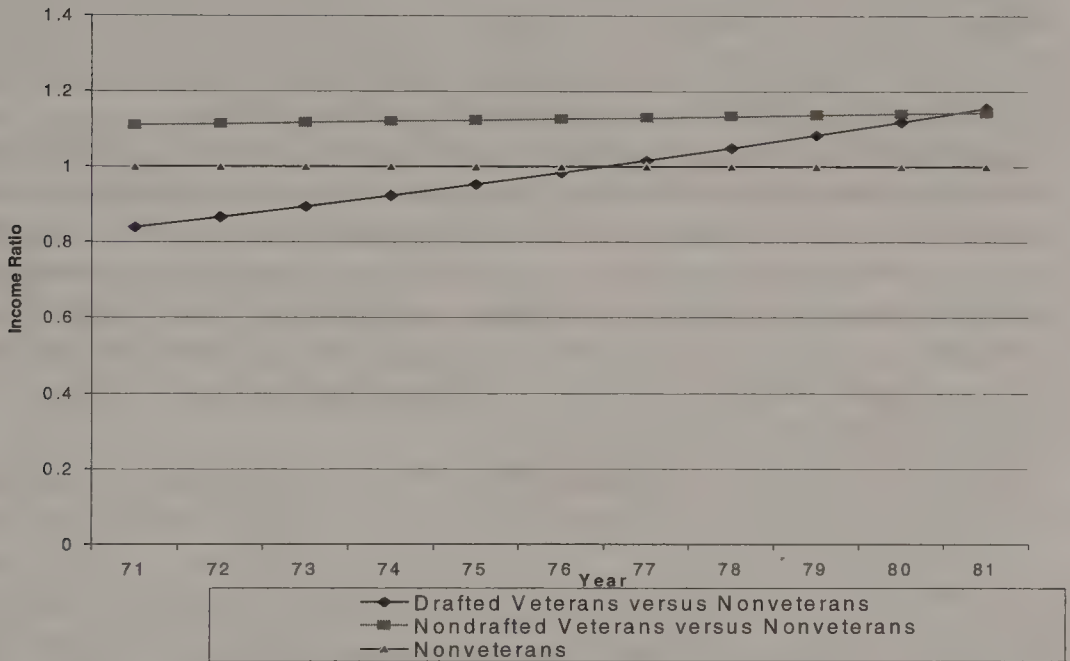
actually enjoy a small earning premium. In other results (not shown here) that exclude the control for labor-market experience, there is no statistically significant difference between veterans who were not drafted and nonveterans.

Figure 1 represents an illustration of the effect of being a veteran by plotting the incomes of drafted and nondrafted veterans relative to comparable nonveterans. The figure assumes that veterans left the military in 1970. It is further assumed that both veterans and nonveterans are 21 years old in 1970, have at least a high school diploma, receive no further education after 1970, are not employed in a public-sector job, do not experience a change in an area's unemployment rate, and marry and gain labor-market experience at a rate reflected in the population as a whole (i.e., no difference between veterans and nonveterans on these variables). The flat line at 1.0 indicates the income of nonveterans in a given year. The top line indicates the statistically significant ratio of the incomes of nondrafted veterans to those of nonveterans. This line slowly drifts upward, although the trend is not statistically significant. The bottom line indicates the statistically significant ratio of the incomes of drafted veterans to those of nonveterans and shows a sharp upward trend that is also statistically significant. In this illustrative scenario, drafted veterans start by earning less than nonveterans, a difference that in this case disappears by 1977 and then turns into a small premium. In addition, by 1981 there is no longer a difference between veterans who are drafted and those who are not.

Discussion

In this article, I have examined the relationship between veteran status and earned income in the civilian labor market for a sample of men whose risk of military service corresponds to that of the Vietnam era. I find that net of unmeasured individual-level and family-specific factors that might affect income, as well as measured background characteristics and cumulative labor-market experience, the negative effect of military service during this era is short-lived and confined to veterans who report that they were drafted. The initial effect of being drafted on income is negative. Upon leaving military service, veterans who were drafted earn less than other veterans and nonveterans. This income penalty is temporary, however, as the income trajectory of drafted veterans is steeper than that for other men. Within a relatively few years after leaving the military, the incomes of veterans who were drafted are not distinguishable from the incomes of other veterans.

It is interesting to note that net of differences in background characteristics and labor-market experiences, nondrafted veterans exhibit an income premium compared to nonveterans (and their income trajectories do not differ from nonveterans). Consistent with the human-capital perspective, other results (not shown) indicate that this premium disappears if the control for cumulative labor-market experience is removed. Thus, at least part of the reason that veterans tend

FIGURE 1: Ratio of Incomes — Drafted Versus Nonveterans and Nondrafted Veterans versus Nonveterans

Notes: See text for set of covariate values used in generating predicted incomes.

to do less well in the civilian labor market (at least early in their careers) is simply the fact that they have had less opportunity to accumulate job experience. All else being equal, the veteran premium also suggests that military service may partially substitute for experience in the civilian labor market or that employers use veteran status as a screening tool to direct veterans into more stable, higher-paying jobs.¹²

Differences in background characteristics and labor-market experience cannot explain the income deficit associated being drafted into the military. The life-course perspective suggests that the negative effect of being drafted may be due to the greater disruption in social and economic networks useful for locating and selecting attractive jobs.¹³ Yet these disadvantages are not insurmountable, as indicated by the results presented. They reflect rather temporary points of disjunction in the life course that fade in importance as time since military service increases.

These findings may help to reconcile differences in prior research. Three points in particular are worth mentioning. First, differences in labor-market experience are important in explaining veteran–nonveteran differences in income. Census-based estimates of veteran effects cannot provide information on such differences

(compare Martindale & Poston 1979) and should be interpreted with this caveat in mind.

Second, much of the prior literature has not distinguished between draftee and nondraftee veterans. Accordingly, samples more heavily weighted toward draftees will be more likely to find an overall negative effect of being a veteran than samples more heavily weighted toward nondraftees. Because draft quotas fluctuated rapidly during the Vietnam years, it is possible for samples of Vietnam veterans to have very different proportions of draftees that depend on the birth cohorts represented. Samples more heavily weighted toward men who would have served during the years 1967–69 will likely have more draftees than samples more heavily weighted toward men who would have served before 1967 or after 1969.

Third, timing in the life course matters. That is, even if draftees are distinguished from nondraftees, results will depend upon how much time has elapsed since veterans served in the military. Research that focuses on Vietnam veterans recently discharged from the military will be more likely to find a negative effect of veteran status than research that focuses on veterans whose service occurred further in the past. Indeed, research that is cross-sectional in nature will generally fail to account for the strong, but temporary, differences in income that hold between men who were drafted into the military and other men.

Overall, the results do not indicate a strong effect of military service on civilian labor-market performance. The negative effect of being drafted is rather short-lived and, because it is located early in the life course, does not represent a substantial fraction of lifetime earnings foregone. Of course, the results presented in this article are restricted to military service during the Vietnam era (although they generally mirror more recent conclusions about the minor effect of military service during World War II) and to the somewhat limited set of characteristics distinguishing among veterans. Other factors, such as witnessing sufficient combat to experience posttraumatic stress or substantial physical injuries, may further distinguish among groups of veterans.

Notes

1. As one reviewer noted, because the military rejects men with physical limitations that might affect their earning ability and most often rejects men with less than a high school education, even during the Vietnam era, the military was more likely to represent the middle and upper end of many distributions than it was to represent the lower end.
2. At the height of the Vietnam war, about 40% of accessions (enlistees and draftees) were the result of the draft (U.S. Bureau of the Census 1975).
3. The generally positive effect of military service during World War II is a case in point.
4. The data used for this article (the National Longitudinal Study of Young Men) indicate that draftees served an average of 24.2 months compared to an average of 34.3 months

for other veterans. In addition, about 31% of draftees report having received some kind of training beyond basic training, versus 47% of other veterans.

5. The NLSYM reports income only on a yearly basis. Variations in income reflect both variations in hourly wage rates and amount of time spent per year in paid employment.

6. Time-invariant variables (such as race — see the discussion that follows in the text) may be included in the model if they are entered as part of an interaction involving a time-varying covariate (for my purposes, veteran status).

7. PROC GLM does not provide an option for the estimation of adjusted (robust) standard errors, something that is recommended when data are weighted. Accordingly, all models reported in this article were reestimated using PROC GENMOD in order to obtain robust standard errors. PROC GENMOD generates coefficient estimates identical to those produced by PROC GLM, but it is substantially slower (on the order of 10–15 times as long in computer processing) and much more cumbersome (it generates a dummy variable and associated coefficient for each person and household in the database).

Unfortunately, the NLSYM does not contain information about primary sampling units that can be used to further correct standard errors for clustering. Because of the mixing associated with migration across the 16 years covered by the data, however, there is increasingly less homogeneity across time among respondents that can be attributed to the original clustering of the sample, reducing the need to adjust for clustering. Moreover, it is likely that the control for an area's unemployment rate (as described in the next section) acts to correct, at least partially, for clustering in the sample.

8. There were two major draft epochs associated with the war in Vietnam: a pre-1970 era in which draft eligibility was determined according to a set of deferments for characteristics such as college attendance and a 1970-and-later era in which draft eligibility was determined randomly according to date of birth. Given the fact that the post-1970 draft was random and thus less likely to be influenced by unmeasured characteristics affecting subsequent civilian income, I included a dummy variable indicating draft era (earlier than 1970, 1970 or later). The results (not shown) did not indicate any difference in the effect according to era.

9. Note that although I use the term *years of labor-market experience*, the measure refers to the number of years that a respondent reported having earned income in the civilian labor market irrespective of the number of weeks or months worked in a given year. Unfortunately, the NLSYM does not contain the data to construct a more precise measure of job experience.

10. Not shown are the results of estimating a set of models that exclude cumulative labor-market experience. These models indicate a null effect of the veteran variable, indicating the importance of the loss of labor-market experience for the income of veterans.

11. I also estimated a set of models that allowed the effects of being a black veteran or a veteran with less than a high school education to vary according to draft status. None of these models yielded significant effects.

12. The NLSYM data contain information on whether veterans received additional training after completion of boot camp, as well as length of such training and a rough indication of type of training (professional/technical, managerial, clerical skilled manual, military only, other). I estimated a number of models that included these variables to see whether they could explain the observed income premium for veterans (results not shown). None of these variables exhibited significant effects and could not explain the veteran income premium. Note, however, that length and general type of military training are only crude measures of military training that might benefit a veteran in the civilian labor market.
13. In results not shown, I tested whether the effect of being drafted could be attributed to length of service or branch of military in which service occurred. Estimates of the effects of these variables were statistically nonsignificant and did not alter the impact of draft status on income.

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When Race Makes No Difference: Marriage and the Military*

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Abstract

While “retreat from marriage” rates have been on the rise for all Americans, there has been an increasing divergence in family patterns between blacks and whites, with the former experiencing markedly higher divorce, nonmarital childbearing and never-marrying rates. Explanations generally focus on theories ranging from economic class stratification to normative differences. I examine racial marriage trends when removed from society and placed in a structural context that minimizes racial and economic stratification. I compare nuptial patterns within the military, a total institution in the Goffmanian sense, which serves as a natural control for the arguments presented in the literature on the retreat from marriage. Through a combination of event history and propensity score matching analyses using the NLSY79, I find that black-white difference in marriage patterns disappears in the military.

Concern regarding marital dissolution, the increasing trend not to marry at all, and the correlation of these behaviors with nonmarital parenting is not new; however, the allocation of federal resources directed to combat these trends by encouraging people to marry is. The government now reallocates federal funds to aid marriage promotion policies in an attempt to regulate family formation among the welfare-receiving population (Bush 2002). This has special saliency for many African American families, disproportionate numbers of whom fall below the poverty line and thus are more likely to experience these policies directly.

** This research was presented at the 2003 Annual Meeting of the American Sociological Association and supported by NICHD Grant 5-T32-HD-07242. I gratefully acknowledge the comments of the editor and two anonymous reviewers, as well as advice from Sarah Hayford, Sheela Kennedy, Doug Massey and Herb Smith on earlier drafts of this article. The matching algorithm program was designed by Herb Smith using Stata® programming language, which is available upon request. Direct correspondence to Jennifer Hickes Lundquist at The University of Massachusetts Social and Demographic Research Institute, Machmer Hall, University of Massachusetts-Amherst, Amherst, MA 01003-9278, E-mail: lundquist@soc.umass.edu.*

Pronounced black-white differences in U.S. family formation have been repeatedly documented in the literature, particularly as increasing attention is paid to overall family change in the past four decades. African Americans are more likely than whites to remain unmarried, have nonmarital births, and, if married, experience marital instability (Goldstein & Kenney 2000; Ventura & Bachrach 1999). The causality behind this racial divergence is complex, and a proliferation of opposing theories and contradictory findings has sparked a continuous, if circular, scholarly debate.

The military context provides a unique structural context to reassess these issues. I compare black-white marriage patterns in the civilian population and the US military, a total institution in the Goffmanian sense, which serves as a near natural control for many of the arguments presented in the literature on the retreat from marriage. In the case of the military, I find that the racial differences in marriage that are so prevalent in the civilian population disappear. My findings shed light on race-based arguments commonly cited to explain differences in family formation behavior, ranging from economic class and racial stratification to historic and present cultural differences.

Explanations for why family formation patterns differ by race in the U.S. population can be broadly grouped into two approaches: economic and normative. The economic argument centers on reduced incentives for marriage in an environment where male unemployment rates are high and wages low. Primarily a compositional explanation, the economic argument posits that the disproportionate poverty experienced by African Americans leads to lessened marriage rates among larger portions of the black population than the white population. This trend is exacerbated for black families due to historical and ongoing labor market stratification, as well as more recent declines in the manufacturing sectors that have differentially impacted black males (Lichter & McLaughlin 1992; Sampson 1995; Wilson 1987, 1996). The economic argument also indirectly incorporates the skewed gender ratio in the African American community, where higher mortality, morbidity and incarceration rates for black males, in addition to their high rates of joblessness, further reduce the availability of marriageable partners (Cherlin 1992; Hayward 2002).

Other research has questioned the magnitude of the role of economics in explaining racial differences in marriage. African American marriage behavior has been found to be linked only minimally to declines in employment rates (Mare & Winship 1991); and black family formation differences persist even among those with higher education and earnings levels (Cherlin 1998; Ellwood & Crane 1990; Lichter, Graefe & Brown 2003). Such findings have lent support to cultural arguments based in historical and continued race differences, including hypotheses on increased female independence (Stack 1997), more extensive kinship norms (Collins 2000; Farley & Allen 1987), and greater acceptance of nonmarital childbearing (Pagnini & Morgan 1996). Many of these explanations are rooted in theories of Western African cultural modes of family (Bledsoe 1980; Herskovits

1941; Littlejohn-Blake & Darling 1993; McDaniel & Morgan 1996; Price 1999; Sudarkasa 1981) or theories of cultural adaptation to slavery and its legacy (DuBois [1896] 1996; Frazier 1949; Patterson 1998).

The strength of difference in social customs as an explanation for racial family difference, however, is considerably weakened once attitudes are taken into account. Blacks do not differ from whites in their hopes of marrying (Ellwood & Jencks 2003; Furstenberg 2001; Oropesa & Gorman 2000; Tucker & Mitchell-Kernan 1995). Extensive interviews with low-income blacks suggest that a driving factor of marriage avoidance is less an aversion to marriage and more an aversion to the high likelihood of divorce in an unstable environment (Edin 2000). Contradictions in preference and behavior suggest that the high likelihood of divorce in an unstable environment, rather than an aversion to marriage, is a driving factor in marriage avoidance. Contradictions between preference and behavior suggest that structural forces impede the realization of a projected set of normative values; antecedent normative disparities are less likely to explain racial differences in marriage rates.

The U.S. armed forces are a relevant testing ground for examining the black-white marriage differential more closely because the military environment serves as a foil to the foregoing economic arguments. Goffman's classic analysis of the total institution (1961) describes a highly regulated and authoritative environment with an explicit hierarchy imposed upon members at all levels of the organization. While there has been no systematic study comparing the military to the general population in terms of race differences in family patterns, the receding importance of race as a stratifying variable in the military has been noted in other arenas, such as economic status. Unlike in the general population, similarly educated whites and blacks in the military differ little in terms of pay scale and career promotion.

The military was among the first U.S. institutions to become racially integrated, and disproportionate minority enlistment rates¹ suggest that it may compensate for labor market discrimination and lack of career opportunity elsewhere (Mare & Winship 1984; Moskos 1983; Sampson & Laub 1996). Survey responses from the 1999 Department of Defense Survey of Active Duty Personnel indicate that African Americans have different reasons for enlisting with the military than whites, with blacks more likely to join for military pay and job security (Lundquist 2004). Moskos and Butler (1996) find a greater degree of African American job mobility and superior opportunities for advancement in the Army relative to the civilian labor force. Relative to the civilian sector, returns to lower education levels are quite high in the military. Military wages are lower than the civilian average; however, on a relative scale, military wages are high for those who lack alternatives. And military service comes with compensatory benefits. Free on-base lodging or housing and subsistence allowances for off base living, tuition benefits, full medical coverage, subsidized childcare, and retirement pensions are perks that do not usually accompany the types of civilian jobs available to young people just out of high school.

The skewed gender ratio for black females in the civilian marriage market is also eliminated in the military context, in sheer quantity, as well as quality, of available males. Black men outnumber black women by a ratio of four to one in the enlisted military and all military men are, by definition, employed. Some researchers have theorized that an undersupply of females in a marriage pool results in higher overall marriage rates (Guttentag & Secord 1983). If this theory holds, however, it would have only a minor impact on total marriage rates, as females comprise a small minority of the armed forces. Although the military is a total institution, its borders are porous, with large numbers of civilians employed on base and large numbers of enlisted personnel living off base. Therefore, while it is unlikely that membership in the military narrows the marriage market to only those in the immediate military pool, the localized marriage market for black females is vastly improved relative to the civilian market.

In addition to, and perhaps because of, equal economic employment opportunities, military culture appears to override racial discrimination in other, less definable ways. The military's lack of residential racial segregation is a particularly significant departure from civilian life. All on-base housing is explicitly racially integrated, and there is evidence that off-base housing patterns—those subject to free market housing choices — are also highly racially integrated. Metropolitan areas with a strong military presence, such as Fayetteville and Jacksonville, N.C., fall among the top five least segregated cities in the United States (Farley & Frey 1994). Given the constellation of negative outcomes associated with racial segregation that affects blacks at all income levels (Massey & Denton 1993), its absence likely translates to a more equitable acquisition of human, capital and social capital; as well as to greater overall social cohesion among the races in the military community.

The dual impact of increased interracial contact and equal employment opportunity may contribute to diminished undertones of racial discrimination in the military environment. Blacks report that race relations are better in the military than in civilian life (Moskos & Butler 1996). This is not to say that racial discrimination is absent in the military context, however. Recent studies have shown that, within the military, more black soldiers than white soldiers perceive racial discrimination and are less satisfied than whites with the military's equal opportunity policy (Holmes 1999; Moore & Webb 2000). Yet, racial discrimination does appear to be more subdued in the military than it is in society as a whole. The prevalence of interracial marriage could be interpreted as an indicator of the quality of black-white relations. African American female soldiers are over three times more likely to marry outside their race than their civilian comparisons and African American male soldiers are twice as likely to do so (Farley 1999).

For the purposes of this paper, one of the most important ways that the military environment differs from larger society is that its equal opportunity policy seems to work more effectively, largely because its institutional norms deemphasize pre-enlistment social class and demand equal contact among the races. For this reason,

a comparative analysis of race in the military context accomplishes what most of the economic-based literature on black-white difference cannot. While the latter studies control for class-related variables, such as employment status, educational attainment, and earnings, it is difficult to devise a variable that encompasses the more insidious effects of racial discrimination beyond socioeconomic stratification. Ruling out cultural explanations for the moment, the persistence of differences between white and black family formation patterns even in cases of economic parity lends support to the hypothesis that racial discrimination manifests itself in ways less visible than class. Destabilizing side effects of racism — whether transmitted through residential segregation, higher overall stress levels, or other mechanisms — are one explanation for why even well-off African Americans experience higher levels of marital uncertainty than whites. If the military is indeed a superior employer in terms of both economic stability and racial equality (and an improved marriage market for black females), the military context serves as a natural experiment for non-cultural explanations for racial difference.

However, the argument is not quite that tidy. While the institutional aspect of the military disposes it well for research purposes, it also introduces constraints that potentially muddy the analysis. In addition to the military's economic stability and its generous benefits package, themselves potential stimuli of marriage, there may be additional incentives associated with marriage in the military. Marriage is a way to leave barrack life during the first term of enlistment. Living in the barracks, though not necessarily required, is free. Marriage enables the enlistee to move off base with a housing allowance. Furthermore, military members with dependents (which include children and/or a spouse) receive a higher housing allowance than members without dependents when there is not housing available on base. While it is unlikely that soldiers marry solely for the extra allowance, it may influence family formation decisions. An Air Force mechanic, for example, says that pay was not the reason he got married but "it helped the decision; it was something in the back of my mind." (Pexton and Maze 1995).

The institutionalist aspect of the military means that it can command conformity of its soldiers in a number of ways, as demonstrated in the case of its equal opportunity policy enforcement. At heart a conservative institution, the military may impose a system of traditional family values on its soldiers. This was not the case for enlisted troops historically, who were discouraged from marriage, hence the old Army adage, "If the Army wanted you to have a wife, it would have issued you one." In most companies, enlisted men had to receive permission from their company commanders in order to marry and were required to meet with a chaplain prior to the marriage (Janowitz 1971). The volunteer-era military, on the other hand, acknowledged that stable families were key to retention and, thus, prioritized support for soldiers' families (Bourg and Segal 1999). The military has created a strong support structure for families, including housing, daycare centers, parent support services, and school-age activity centers and programs, many of which are subsidized by the government. But this does not necessarily mean that

the Pentagon actively encourages the formation of new families. In fact, citing readiness issues in 1993, the Commandant for the Marine Corps announced a marriage ban on first-term enlistees (Connable 2002). Although the proposed marriage restriction was later rejected as a breach of personal rights, it suggests that family formation among low ranking soldiers may be seen as more problematic than advantageous. Still, even if family promotion is not a formal Pentagon goal, the informal diffusion of pro-family values within the military community generally cannot be ruled out as an additional influence, nor as a potential self-selector of individuals into the Armed Forces.

I have made a case for why the military serves as an excellent control for issues of socioeconomic status and race stratification, both of which undermine African American family formation behavior in larger society. I also acknowledge that my research design is not equipped to fully uncover underlying causal mechanisms. Definitively disentangling whether the results stem more from structural influences specific to the military or from an environment that mitigates racial discrimination and economic disparities is an analytical weakness. Nevertheless, the military context provides a unique counterfactual scenario. Addressing if and how an alternative environment interacts with race provides important insight into the ways we currently conceptualize race difference in civilian society.

Data and Methods

The analysis in this paper uses data from the National Longitudinal Survey of Youth (NLSY79), which contain interviews with both black and white civilians and military enlistees² for a six-year period from 1979 to 1984. The military sub-sample lost its funding subsequent to the 1985 interviews and was thereafter dropped from the NLSY. While the dataset is dated for this reason, it is the only one that can be used to test this particular question.³ The NLSY is unique in that it is the only longitudinal database with both a sizable military sub-sample and a civilian sample for direct comparison; most surveys exclude institutionalized individuals, including military members. One advantage to the early date of survey is that it represents a time period when urban poverty was deepening and becoming more spatially concentrated, the same decade in which Wilson (1987) developed his “marriageable male” hypothesis.

The NLSY has a multi-staged sampling design consisting of stratified random samples and a small rate of nonresponse.⁴ The military sub-sample comprises enlisted personnel from all four military branches, over-sampled by sex. The comparison civilian sample is a cross-section of civilian youth augmented by an oversample of both minorities and economically disadvantaged nonminorities.⁵ After limiting the sample to ages 18 and over, to blacks and whites only, and by unmarried status, the analytic sample is reduced from the initial 12,600 to 5,036 individuals. It is important to note that the young age of the NLSY cohort, with

ages ranging from 22 through 26 years at the end of the observation period, necessarily constrains the marriage analysis to be one of early marriage — not percent *ever* marrying.

In this article, I run two different multivariate analyses to examine black-white difference in marriage. I use event history multivariate analysis followed by propensity score matching analysis to further elucidate findings from the first analysis. I conclude with a graph of current military-civilian marriage rates, using cross-sectional data from the 1999 Survey of Active Duty Personnel and the 1999 Current Population Survey.

EVENT HISTORY LOGISTIC REGRESSION ANALYSIS

I construct an event-history file for each person-year beginning in 1979, when the sample was selected. In order to assess the risk of transitioning into marriage in years to come, I limit the sample to individuals who were either never married or divorced as of the year of sample selection. I then employ discrete-time event history models using these person-years as units of analysis and run two models estimating the probability of marriage: the first for the civilian sample, and the second for the military sample. In each, I examine predictors of marriage specific to the subsample, but the focus is on the race variable. Rather than running a third pooled model to test for an interaction between military/civilian status and race, I calculate a test statistic for the difference between the race coefficients in each model.

MULTIVARIATE PROPENSITY SCORE MATCHING ANALYSIS

After testing in the first multivariate analyses whether black-white differences in the propensity to marry exist in the military as they do in the civilian sector, matching analyses serve to more closely compare black civilians to black military enlistees and white civilians to white military enlistees in their propensities to marry. Selection of “elite” blacks into the military is a concern, as shown in the descriptive data of Table 1, and matching African Americans in the military to civilians who look exactly like them on all measurable characteristics is a means of testing the robustness of my findings in the first set of analyses. Compared to regression analysis, matching eliminates comparisons across dissimilar groups, maximizing efficiency and potentially improving the ability to draw causal inference (Rosenbaum & Rubin 1985; Rubin 1979; Smith 1997). By excluding all civilian respondents who do not match up with military respondents from the analysis, the matching process eliminates potential bias created by the unequal distribution of covariates across treatment and control groups. The NLSY data afford an excellent opportunity for propensity score matching analysis, with a small military “treatment” sample and a comparatively large sample of civilian “controls” from which to select as appropriate matches. Unlike regression analysis, matching also

avoids the potential for misspecification by eliminating the need to make assumptions about what functional form the analysis should take.

In two models separated by race, I match black civilians to black military enlistees, and white civilians to white military enlistees. The matching process is repeated for each year of the analysis and is based on a combination of (1) shared propensity scores (close to exact characteristics on all covariates); and (2) exact characteristics. I then evaluate annual marital outcomes on the basis of these matched groupings. The propensity scores are created by a linear estimation of covariates predicting whether civilians have the same characteristics as those who join the military.⁶ All individuals are assigned a propensity score based on their fitted logit from the regression results. Using a matching algorithm program, each military "treatment" is then matched to up to six civilian "controls" according to two criteria: (1) that their propensity scores match within a very small range of scores, as specified by a caliper of ± 0.1 fitted logits; and (2) that variables for sex, race, unmarried status, and sample status are used as *exact* matching criteria, and for that reason are not included in the propensity score calculation.⁷

The matching process is randomly ordered within exact strata. Once a match is made, that civilian is removed from the pool of available controls, so that no control is matched to more than one treatment. To avoid biasing results toward those treatments assigned a higher number of matches, the groups of control matches are inversely weighted by their total number. Once all military members have been accordingly matched, the process is straightforward. I predict the logistic likelihood of marriage for the military treatments versus their civilian controls, both of which, postmatching, have become very similar groups.

Descriptive Data

A concern in this article is the asymmetry of characteristics between those who elect into the military and those who do not. Table 1 is a descriptive chart showing distributions for the four groups that I analyze from the NLSY: military blacks, military whites, civilian blacks and civilian whites. The independent variables used in the analyses are a mix of controls associated with the prediction of marriage and those associated with socioeconomic selection into the military, many of which overlap. Most are constant over time, although age, educational attainment, school enrollment, full-time employment, and number of children fluctuate throughout the time period of observation. There is also sample crossover between civilian and military status. Attrition from the military is quite high over the six-year period of observation; I censor observations when they drop from the military into the civilian sample or, less frequently, switch from the civilian sample into the military sample. In the section that follows, I address statistically significant trends presented in Table 1.

Table 1 reveals the extent to which selection criteria differentiate those in military service from those in the civilian world. Gender composition is the most obvious difference, given that the military until 1973 was a predominately male institution. Whereas today women comprise 14% of the total military, as of 1979 the proportion was half that (African American female representation has since tripled). In the case of blacks, socioeconomic selection is salient in the respondents' education level. Blacks in the military are much more likely than black civilians to hold a high school degree, yet at the same time are significantly less likely to have attended college. This reflects the military's recruitment preference for high school graduates, and also suggests that those who join the military at ages 18 through 22 are either delaying or replacing college with enlistment in the military. Twenty-four percent more enlisted blacks than civilian blacks have a high school diploma, yet 16% fewer black enlistees than black civilians attended college. Black enlistees are statistically, although marginally, *more* likely than white enlistees to have graduated from high school, and equally likely to possess a college education, both of which are in opposition to racial trends in civilian life. Since socioeconomic selection is positively correlated with the likelihood of marriage, such differences are of interest.

Some research has identified a weak degree of positive selectivity of African Americans into the armed forces (Teachman, Call & Segal 1993). If, as has been suggested, blacks encounter superior labor opportunities in the military than in the civilian world, there may be greater competition to enlist, eliciting higher average selectivity of blacks than whites. Further support for the selectivity hypothesis is seen in mother's level of education, an NLSY variable on which military blacks differ from civilian blacks by about half a year of education. (While father's level of education might be a more accurate reflection of socioeconomic status, substantially fewer respondents knew their father's education level.)

AFQT scores (the Armed Forces Qualifying Test, a standardized test of trainability which was administered to everyone in the NLSY) are also higher for military blacks than for civilian blacks; however, the black-white difference is much greater than the military-civilian difference. Civilian blacks are significantly more likely to be single parents than are military blacks; some of this difference is due to the fact that they are also more likely to have been previously married. Other characteristics may balance out positive selectivity. Civilian blacks are significantly more likely than military blacks to have attended a private high school and to have attended college. They are also less likely to have been living in a single parent household at age 14, they come from smaller families, and they are less likely to have been raised in an urban setting, although the difference in residence is not statistically significant. Remaining variables on childhood residence and religious orientation indicate more similarity than difference across the African American samples.

TABLE 1: NLSY Variable Averages and Means Upon Original Sample Selection

	Unmarried, Black and White NLSY Respondents, Ages 18 to 22			
	Military Sample		Civilian Sample	
	Black Enlisted	Black Civilian	White Enlisted	White Civilian
	(22%)	(78%)	(15%)	(85%)
Independent variables				
Male (percentage)	94	93	50	55
Age	20.1	20.0	19.5	19.5
Rotter score	8.98	8.43	8.97	8.39
Conservative values	17.26	17.52	16.89	16.68
High school graduate (percentage)	95	89	71	89
Attended private high school (percentage)	1	5	5	9
Attended college (percentage)	17	17	33	47
Rural or suburban residence, age 14 (percentage)	15	26	18	21
Single parent, age 14 (percentage)	41	16	37	11
Religion in which raised (percentage)				
Catholic	10	33	7	36
Jewish	0	1	0	2
General Protestant	81	54	78	47
Other	5	8	10	13
No religion	3	5	5	4
Religious attendance (percentage)				
Never	21	31	18	23
Infrequently	33	38	24	32
Once a month	10	12	12	9
2–3 times a moth	16	8	19	9
Once a week	15	8	18	18
More than once a week	6	3	9	8
AFQT Score	32.6	59.0	25.0	60.5
Mother's education (years)	11.3	11.9	10.8	12.2
Currently enrolled in schoolfull time (percentage)	0	0	29	33
Currently employed full-time (percentage)	100	100	40	54
Previously married (percentage)	.01	.07	.06	1
Own children in household (percentage)	1	1	16	2
Number of siblings	4.9	3.5	4.7	3.0
N	926		4,110	
(N = 6,057)				

Of relevance is the occurrence of a miscalibration error in the Armed Forces Vocational Aptitude Battery (ASVAB) during the period from 1976 to 1980, inflating test scores at the low end of the curve (Sticht et al. 1987). As a result, almost half of all enlistments during that time were mistakenly categorized into higher ASVAB percentiles than their scores merited; many of these enlistees would not otherwise have gained entrance into the military. This disproportionately benefited blacks, who are turned down from military service at higher rates than whites due to lower average test scores (blacks apply to the military at higher rates). Since sample selection for the NLSY took place in 1978, the NLSY military subsample was affected by this statistical norming error, which may exert a leveling effect on otherwise positive selectivity of African Americans into the military.

While selectivity of African Americans into the military appears to be positive, Table 1 suggests this is less the case for whites. White enlistees in the NLSY resemble white civilians in terms of high school education and AFQT scores, but they exhibit otherwise less privileged background characteristics. They are significantly less likely to have attended college or a private high school, come from a larger family on average (and one that was headed by a single parent), and report statistically lower levels of mother's education than civilian whites.

Table 1 shows that those in the military are about half a year older on average than civilians, a function of the fact that one must be 18 to enlist and that the sample was selected approximately six months previous to the first 1979 interview. The difference in the proportion of the subsample that lived in nonurban areas at age 14 is statistically significant between blacks and whites in general and also between white civilians and white enlisted personnel.

I also include in my analysis several measures controlling for differences in attitudes toward family formation behavior: two scale measures, the religion (if any) in which the respondent was raised and his or her frequency of religious attendance. The two scale variables, Rotter scores and Conservative Values scores, measure respondents' attitudinal characteristics as of 1979. The Rotter score is a gauge of personal "internal or external control," intended to reflect the extent to which people feel in control of their own destiny as opposed to having their fate decided by environment or chance. The Rotter score ranges from 4 to 16, with lower scores indicating a higher degree of internal control. These scores differ significantly by race, but not by military or civilian status, with African Americans scoring slightly lower internal control scores. Perceptions of internal versus external control are correlated with authoritarianism (Ray 1979), which may capture personality traits of individuals attracted to the military.

The conservative family values scale, a sample agree-disagree statement of which is "Women's place is in the home, not the office or shop," ranges from 7 to 28 by degree of conservatism. The only significant difference for this variable is between the white enlisted sample and the white civilian sample, where whites in the service are more conservative than those in civilian life. The scale suggests that white, but

not black, military types have more conservative values toward family and gender roles, as might be expected (at least among males).

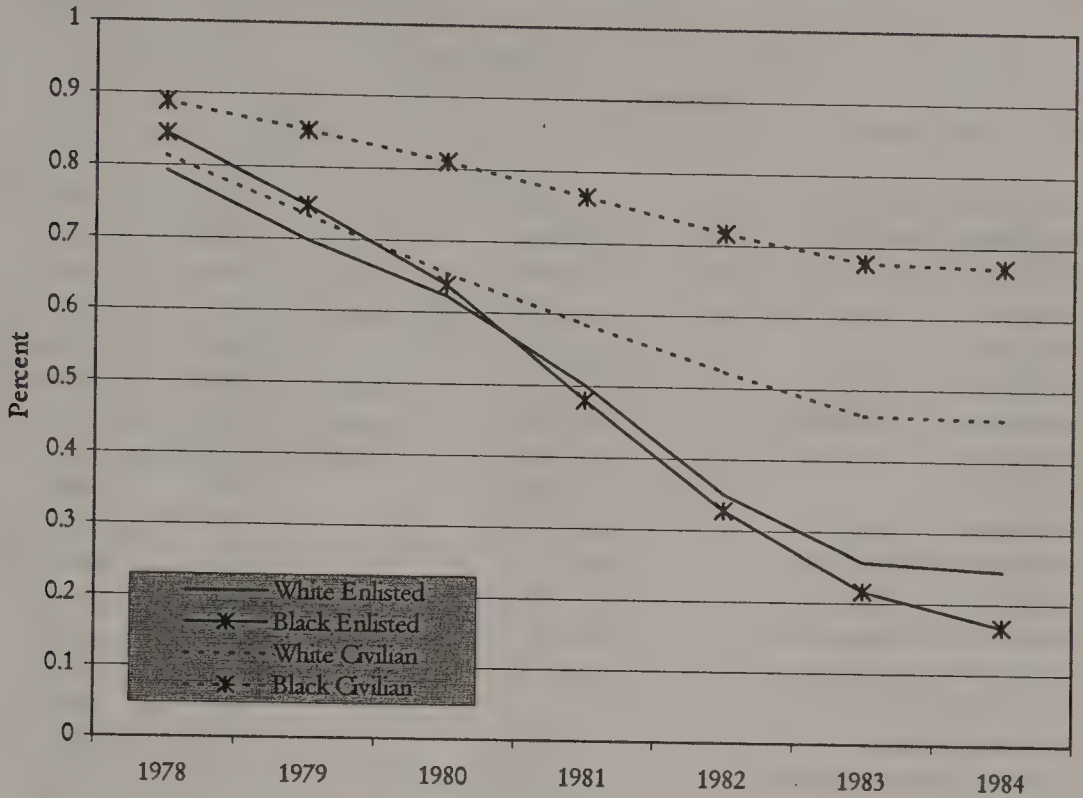
Remaining time-changing variables, such as employment status, enrollment status, presence of children, and marital history all directly affect the likelihood of marriage. By definition, military sample members are employed full-time and as such, are not enrolled in school full-time (although many enlisted personnel are in school on a part-time basis as a function of the military's extensive education benefits). White civilians in the NLSY are statistically more likely than black civilians to be employed and equally likely to be enrolled in school. While there is little variation in previous marriage histories (at most 1% of white civilians were divorced before first interview) there is a statistical difference between the black military sample and the other samples. Compared to the other three groups, black soldiers are least likely to have been previously married. Childbearing histories depart significantly for African American civilians from the other subsamples in that they are most likely to have children.

The characteristics measured by the NLSY are wide ranging and thorough; however, military enlistees are obviously not assigned at random to the military. Self-selection on the basis of any number of unobservables correlated with future marriage behavior is a possibility. Presumably, more traditional individuals are attracted to the military. The conservative family values scale and measures of religiosity are included as controls for this possibility, as is the Rotter score for gauging predisposition toward conformist behavior. However, these variables do not account entirely for personal traditionalism, nor for any psychological characteristics, such as achievement orientation, that might dispose individuals toward early marriage.

In sum, Table 1 tells a story of skewed population compositions in the US armed forces. In the context of nuptiality, these sample differences might be expected to predict higher than average aggregate levels of African American marriage. Figure 1 depicts the prevalence of never married (single) individuals in the NLSY sample over time. Civilian groups are differentiated from the military groups with dotted lines; diamonds distinguish African American trend lines from those of whites. As of 1978 when the NLSY79 samples were selected, marital status distributions already differed among the samples. Approximately 80% of military whites had not yet married, compared to 84% of military blacks, 82% of civilian whites and 88% of civilian blacks. It is unclear whether change in marital status occurred before or after initial enlistment for the military members, but it is clear that, post-sample selection, enlisted personnel began to marry at a more rapid rate regardless of race.

The comparative absence of a racial difference among the military curves compared to the civilian curves is noteworthy. The percent remaining unmarried for military members of both races decreased at similar rates during the time period, so that by the final panel year⁸ almost 50% of those who were originally single had married. In contrast, the growing gap between civilian blacks and whites marrying

FIGURE 1: NLSY79 Percent Never Married Over Time by Sample Status



during the time period bears out national data trends. By the end of the survey period, white civilians had “outmarried” black civilians by 21%. The descriptive data on nuptiality in Figure 1 indicate not only that race difference is absent among the military samples but that, overall, marriage is more prevalent inside than outside the institution of the military. The African American trend might be surprising were it not for the comparatively high socioeconomic traits and differences in family structure shown in Table 1 characterizing those who join the military. The multivariate analyses that follow test whether the nuptial trends shown in Figure 1 are merely a function of sample composition differences or result from something more specific to military life itself.

Event History Regression Results

Tables 2 and 3 show results from two models using logistic regression event history analysis over the period 1979 to 1983. The model in Table 2 predicts the event of marriage for unmarried members of the *civilian* NLSY sample (23,136 person years) while that shown in Table 3 predicts the event of marriage for unmarried members of the *military* NLSY sample (3,192 person years). The only structural difference between the two models, aside from sample composition, is that the civilian model

TABLE 2: Event History Maximum Likelihood Logistic Regression — Predicting Marriage Civilian Sample Only

Independent Variables	Odds Ratio		b	S.E.
<i>Race</i> (omitted: white)	.380	***	-.967	.077
Sex (omitted: male)	1.528	***	.424	.052
1957 cohort (omitted: 1961 Cohort)	1.814	***	.595	.126
1958 cohort (“)	1.388	***	.328	.080
1959 cohort (“)	1.263	***	.233	.074
1960 cohort (“)	1.065		.063	.072
Previously married (before 1979)	1.403	+	.339	.197
Age duration	11.310	***	2.426	.226
Age ² duration	.944	***	-.058	.005
AFQT score	.999		-.001	.001
Conservative values score	1.022	**	.022	.008
Rotter score	.980		-.020	.013
Attended private high school	.878		-.130	.105
Rural residence, age 14	1.218	***	.197	.059
Number of siblings	1.016		.015	.011
Single parent, age 14	.988		-.012	.067
Religious attendance frequency	1.079	***	.076	.015
Raised catholic (omitted: Protestant)	.874	*	-.135	.062
Raised no religion (“)	.974		-.027	.129
Raised other religion (“)	.904		-.101	.079
Mother’s education	.981	+	-.019	.011
High school graduate (or GED)	1.004		.004	.078
Attended college	.992		-.008	.065
Currently enrolled in school	.429	***	-.846	.095
Currently employed	1.185	**	.170	.063
Intercept	—	***	-27.319	2.419
Log Likelihood = -6065.9				
N = 23,136 person years				

† p < .10 * p < .05 ** p < .01 *** p < .001

has additional variables for time-varying full-time employment and full-time school enrollment; these variables are meaningless in the military model because, as a matter of military service, members are employed full-time, preempting full-time school enrollment. Employment and enrollment status are strongly linked to marriage behavior. Inclusion of these controls in the civilian model makes for a more reasonable cross comparison with the military group.

The coefficient for race (predicting for African Americans) is the primary coefficient of interest, and is italicized at the top of each table. The race coefficient in the civilian table (Table 2) is strongly and negatively associated with marriage,

TABLE 3: Event History Maximum Likelihood Logistic Regression — Predicting Marriage

	Military Sample Only		
	Odds Ratio	b	S.E.
Independent variables			
Race (omitted: white)	.898	-.107	.149
Sex (omitted: male)	2.393***	.873	.109
1957 Cohort (omitted: 1961 cohort)	.652	-.428	.266
1958 Cohort (omitted: 1961 cohort)	.801	-.222	.221
1959 Cohort (omitted: 1961 cohort)	.702†	-.354	.209
1960 Cohort (omitted: 1961 cohort)	.922	-.081	.198
Previously married (before 1979)	3.055**	1.117	.367
Age duration	5.465***	1.698	.519
Age ² duration	.963**	-.038	.012
AFQT score	1.005*	.005	.003
Conservative values score	1.002	.002	.022
Rotter score	.996	-.004	.026
Attended private high school	1.250	.223	.231
Rural residence, age 14	.835	-.181	.124
Number of siblings	1.025	.025	.021
Single parent, age 14	1.214	.194	.131
Religious attendance frequency	1.038	.038	.035
Raised catholic (omitted: Protestant)	.755*	-.281	.123
Raised no religion (omitted: Protestant)	.567†	-.567	.301
Raised other religion (omitted: Protestant)	1.111	.105	.179
Mother's education	.918***	-.085	.025
High school graduate (or GED)	1.257	.229	.272
Attended college	1.070	.068	.133
Intercept	—***	-21.107	5.494
Log likelihood = -1332.4			
(N = 3,192 person years)			
† p < .10 * p < .05 ** p < .01 *** p < .001			

which is consistent with race differences shown in other research, where blacks have lower marriage rates overall and are more likely than whites to postpone marriage.⁹ In contrast, the race coefficient in the military table (Table 3) has no bearing on marriage. A statistical test comparing the race coefficients across the two models indicates a strong and significant difference, at $p < |.0001|$. Thus, Tables 2 and 3 demonstrate that the descriptive data trends illustrated in Figure 1 are not merely artifacts of socioeconomic compositional differences in the military sample.

Notwithstanding various controls for socioeconomic status — educational attainment of both respondent and parent, AFQT scores, employment status, and childhood family structure — , as well as attitudinal measures, race continues to be one of the strongest predictors of remaining single in the civilian world, but means little in the military world.

One limitation in comparing Table 2 and Table 3 is their vastly different sample sizes. The civilian sample is seven times the size of the military sample, an asymmetry that elicits caution in drawing conclusions based on findings that are statistically significant in the civilian population but not in the military population. Therefore, a caveat is in order when comparing race coefficients across Tables 2 and 3 and concluding that respondent's race has no effect on marriage in the military environment. Even though results from the smaller military sample (Table 3) are generally robust, with a large number of strong effects, the race coefficient, although not close to significance, points in a slightly negative direction. As such, there is a slim possibility that the coefficient might have attained significance had the military sample been larger. However, this is unlikely.¹⁰ In any case, not only is the race effect on marriage not statistically significant in military life compared to civilian life, but the *magnitude* of the effect is severely attenuated, reduced from negative odds of 62% to only 10%.

Apart from the alternating predictive power of race, most characteristics that drive marriage in the civilian sector have similar effects in the military. Asymmetric sample sizes aside, other covariates in the military sample exhibit very strong effects, and each model has a similar number of significant variables. Age (measured by duration in the sample) is a very strong predictor of marriage as one might expect; however, it has twice the magnitude for civilians as for enlistees. The relationship between the risk of marriage and time spent single is non-linear, with the likelihood of marriage rising with age but at a declining rate. In both samples, females are more apt to marry. This is likely a function of the observation period taking place early in the respondent's life with women marrying on average at younger ages. The risk of marriage for women in the military is twice that for civilian women, which may reflect the favorable local marriage market conditions for female enlistees.¹¹

More conservative attitudes predict marriage for civilians, although the magnitude of the effect is small. Higher religious attendance rates are positively correlated with marriage for civilians but not for the enlisted during the observation period, as is being raised Protestant (rather than Catholic) for both groups. Being previously married predicts entry into another union for both military and civilians. Because the respondents are aged 18 to 22 upon beginning the observation period, their previous marriages occurred at very young ages, suggesting an anomalous group with unusual proclivities toward marriage. The stronger effect among the military members who had been previously married suggests that the military environment may heighten this proclivity.

Differences between the military and civilian samples in determinants of marriage (aside from race) are modest. High scores on the AFQT predict marriage, but the magnitude of their effect is small. For civilians, this test is not correlated with marriage. Mother's education level is negatively correlated with marriage for enlisted men and women, and slightly so for civilians. Oddly, having a high school degree is not a predictor for either sample, perhaps because there is so little heterogeneity in the distribution of this variable. Having some college education has no effect across either group. While this might seem inconsistent with universal predictors of marriage, the young age span of the NLSY respondents does not capture marital trajectories beyond exact age 23 for the youngest in the sample and exact age 27 for the oldest. Thus, the unexpected results for college education most likely reflect delay in marriage among the college educated.

For civilians, having grown up in a rural setting is positively correlated with transitioning into marriage. Employment status and school enrollment, variables that were included only in the civilian sample, predict marriage in the expected directions. Employment is positively correlated with marriage, while enrollment in school is negatively correlated with marriage. Service in the military represents full-time employment, and therefore the employment effect on marriage can be assumed to apply universally in the case of the military.

Multivariate Propensity Score Matching Results

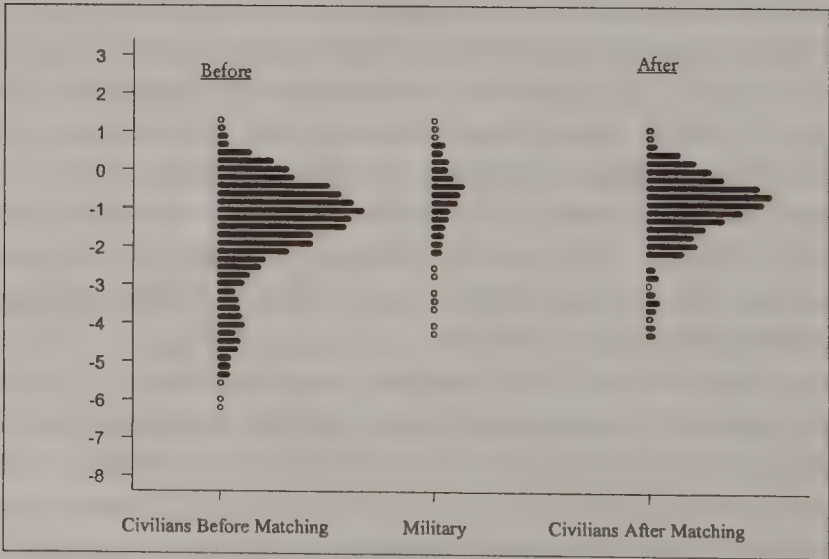
The event history analyses indicate strong differences in the effect of race on marriage depending on whether one looks at the military or the civilian sample. In this section, I examine blacks and whites separately, matching military blacks to civilian blacks and military whites to civilian whites on the basis of shared propensity scores (which reflect military sample characteristics). While two different sized sample groups in the previous models led to some ambiguity in drawing comparisons, the larger size of the civilian sample relative to the military is advantageous here. In propensity score matching, a large control group and comparatively small treatment group provide ample opportunity for the creation of close matches. And, as mentioned previously, matching is a gainly method for overcoming bias when there are imbalances among covariates, as is the case with the NLSY military and civilian samples.

All the variables listed in Table 1, except for sex, enrollment, and employment status are factored into the propensity scores. Enrollment and employment status are necessarily excluded because there is no variation for the military members. Sex is excluded from the propensity score calculations because it is specified in the exact matching criteria, along with race, sample status, and single marital status. Because some characteristics change throughout the observation period, I create annual matches based on new propensity scores and exact matching criteria. Figures 2 and 3 show distributions of propensity scores at the midpoint of the NLSY

FIGURE 2: Propensity Score Distribution Before and After Matching
Black Matched Samples



FIGURE 3: Propensity Score Distribution Before and After Matching
White Matched Samples



observation period, and serve to illustrate how different the prematched civilian samples are and how similar the post-matched civilian samples are to the military samples. Figure 2, which features the military and civilian African American groups, shows a dotplot of the civilian scores *before* matching and a dotplot of the civilian scores *after* matching. The military propensity scores are located between the before and after civilian scores for comparison. Figure 3 depicts the propensity score distributions in the same order, but for the white military and civilian groupings. A comparison of the pre- and post-matching civilian score distributions with the military score distributions illustrates how propensity score matching effectively discards cases that ill resemble the treatment (military) group, thereby controlling potential bias.

Before the matching process, the civilian groups have a more rightward distribution than the enlisted sample; but following the matching process, the shape of the distributions between the civilian and enlisted groups are almost exact. (Nevertheless, there is a greater likelihood of multiple matches for those military members that have a more negative skew.)

Distributional differences in the prematched samples notwithstanding, the civilian samples sufficiently overlap the military samples so as to ensure plentiful matches, except at the far leftward side where controls are more scarce. Excess civilian controls, concentrated primarily in the rightward skew of the distributions, are simply dropped; their dissimilarity from the military treatment groups contributes no information, making them irrelevant to the analysis. After specifying matches according to a combination of similar propensity scores and exact characteristics, the final step predicts the annual likelihood of marriage for the matched groups via logistic regression, shown in Table 4.

Table 4 presents annual odds ratios predicting the likelihood of marriage for each of the matched groups. Model 1 describes the black matched groups and model 2 describes the white matched groups. Black enlisted members show a consistent and very strong likelihood of marrying compared to their civilian control comparisons over the time period. Each year, black service members are three to four times more likely than black civilians to enter into a marital union. The effect is also positive for whites in the military group; however, the magnitude of the effect is weaker and the final year of comparison yields no significant difference between the two groups. Table 4 also depicts the average matched cases and sample sizes for each year of analysis.¹²

Overall, the matching analyses clearly show that even when enlisted individuals are matched to identical civilians, they depart on the likelihood of marriage. Black enlisted personnel are significantly more likely than black civilians to marry over the course of the panel. The same is true for matched whites. That the coefficients are so large for the African American matches compared to the white matches reflects the comparatively low probability of marriage for civilian blacks compared to civilian whites (confirming this, statistical tests comparing the coefficients across the two models indicate significant differences). The trends in Table 4 thus indicate

TABLE 4: Marriage Likelihood by Race — Propensity Score Matching

	Model 1 Blacks Military vs. Civilians	Model 2 Whites Military vs. Civilian
Matching marriage odds		
Odds of marriage 1979	3.89***	1.89***
Average matched cases	2.2	3.4
Unmatched treatments (percent)	5.7	5
Total observations	763	2839
S.E.	1.052	.211
Odds of marriage 1980	4.67***	1.27*
Average matched cases	3.1	3.9
Unmatched treatments (percent)	3.1	1.5
Total observations	631	2238
S.E.	1.387	.156
Odds of marriage 1981	4.56***	1.90***
Average matched cases	3.5	4.7
Unmatched treatments (percent)	1.3	1
Total observations	433	1632
S.E.	1.536	.271
Odds of marriage 1982	2.84**	2.27***
Average matched cases	4.1	5.1
Unmatched treatments (percent)	0	.06
Total observations	318	1094
S.E.	.935	.387
Odds of marriage 1983	3.36*	.926
Average matched cases	5	5.9
Unmatched treatments (percent)	0	0
Total observations	231	617
S.E.	1.67	.217

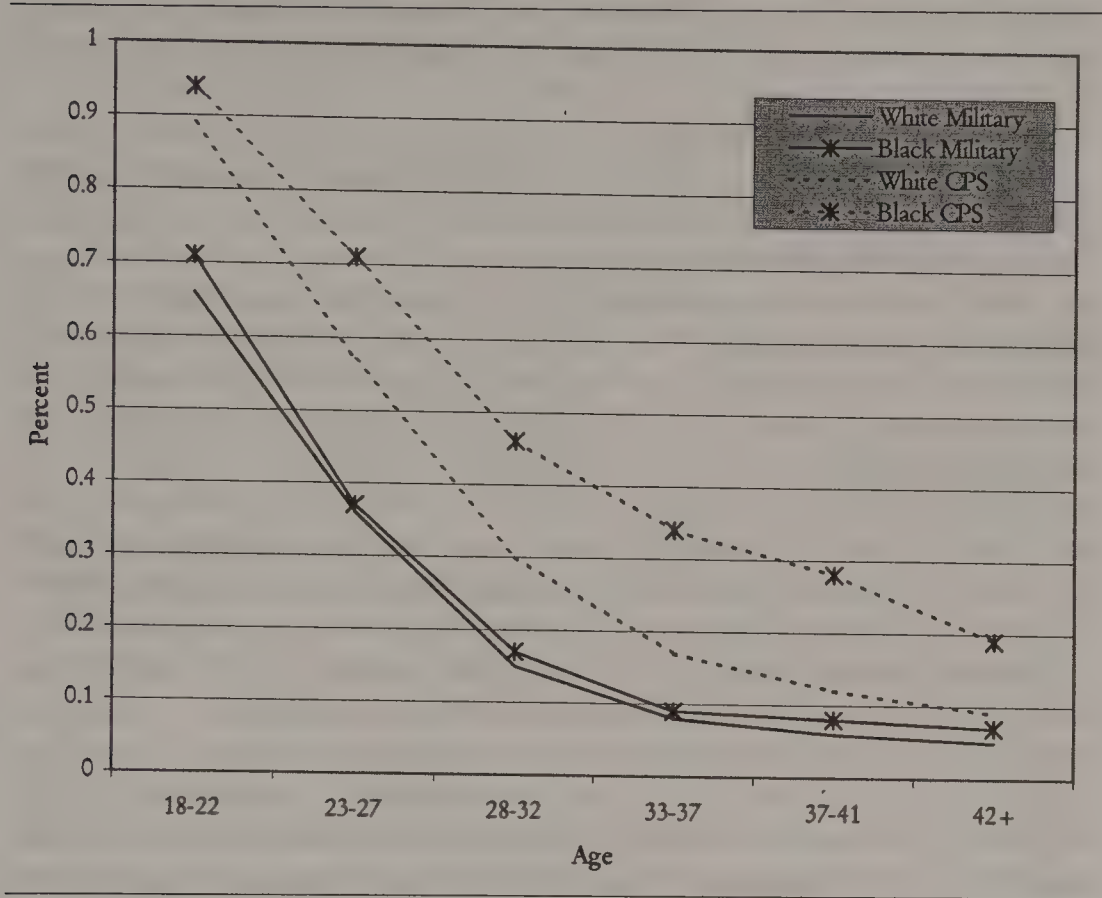
Notes: Odds ratios predict likelihood of marrying according to fixed propensity scores and year-by-year changing characteristics.

† $p < .10$ * $p < .05$ ** $p < .01$ *** $p < .001$

that blacks and whites who serve in the military are, on the whole, significantly more likely to marry than their similar civilians counterparts, and little different from one another in the likelihood of marriage.

Because the NLSY includes marriage patterns only as far as the 1980s, it is reasonable to question its relevance today. In Figure 4, I graph descriptive data on marriage trends of military personnel and civilians as of 1999. These data come from the Survey of Active Duty Personnel (SADP) and the Current Population

FIGURE 4: Percent Never Married by Age SADP and CPS September 1999



Survey (CPS). Neither dataset contains sequencing information on marriage events, and are therefore crude cross-sectional snapshots of current day patterns. Nonetheless, the patterns indicate that the 1979-84 NLSY trends are similar to current patterns. In 1999, the CPS civilian data show a race gap in people never married by age, whereas the SADP military data show no such race gap. Like the NLSY, the SADP data also show higher proportions married within the military across race. Furthermore, Figure 4 suggests that the marriage trends I found in the NLSY apply to later adulthood as well.

Discussion and Conclusion

How do these findings contribute to the literature on marriage differentials among blacks and whites in US society? By extending the focus from the societal context, they indicate that commonly found racial differences in marriage trends do not exist in a total institution like the military, providing a counterfactual perspective on the black-white marriage question. Event history models predicting the likelihood of marriage show that black civilians are less likely than white civilians

to marry, whereas black and white military enlistees exhibit similar — and very high — propensities to marry. The matching models reinforce these findings, showing substantial difference between civilians and military in the propensity to marry, even when they match almost identically on all other (measurable) characteristics.

The data that emerge on military marriage tell two stories. First, race ceases to play a role when it comes to marriage in the military. Second, marriage rates in the military are unusually high for everyone. Given theories that explain racial difference in society-wide marriage patterns, it would not be unreasonable to expect that even if marriage rates were higher in the military, there would still be a racial gap as in the civilian world. This not being the case, I theorize that specific characteristics of the military render racial differences in marriage rates irrelevant.

The military provides stable employment and offers opportunities for educational and career mobility, particularly for those with fewer opportunities in civilian society. Good, stable employment is a known predictor of marriage, and this economic leveling effect alone is one reason why marriage rates for blacks and whites are similar. Yet good, stable employment has not been enough to narrow the racial gap in marriage propensities in society. That the gap appears to have been bridged in the military environment indicates that something more than economic parity drives the effect. Racial differences in cultural norms have been commonly cited as an explanation; however, this explanation does not seem to apply in this analysis, as racial differences disappear in an alternative environment like the military. That being said, the military may have its own set of institutional norms, which effectively override any preexisting black-white differences. Yet it is also likely that the bridged gap in marital behavior largely reflects the decreased presence of racial discrimination in the military. The overriding importance of military rank compared to more typical stratifiers like race or class, the lack of residential racial segregation and more equal access to social and economic resources may create an overall social milieu in the military that is conducive to family formation.

Aside from aspects of the military that decrease the importance of race in predicting marriage, why might marriage be more common *overall* in the military than in the civilian sector? It deserves emphasizing that the NLSY data indicate only that marriage rates in the military are higher than those among civilians at *early ages*. Since the NLSY analysis does not extend beyond exact age 27 in the last panel year, it is possible that civilians catch up at later ages (although the SADP data graphed in Figure 4 suggests that they do not). Service in the military, rather than having a depressing effect on marriage as college attendance does, may exert a positive effect on the likelihood of marriage by creating a stable environment with a known career trajectory almost immediately following high school graduation.

In conclusion, the race-equalizing aspect of the military, in tandem with (or driven by) superior economic opportunity, appear to render race irrelevant to the prediction of marriage. Building on this effect, structural incentives specific to the

military may produce military marriage rates in both the black and white population that are higher than those of civilians. It could also be argued that it is impossible to separate a race-equalizing effect from the overall marriage incentives effect of the military; structural elements may entirely drive the phenomenon, such that racial cultural differences are not necessarily disproved, but simply overridden by immediate marital incentives in the military. The NLSY data do not provide the means to test this. Still, to deny completely the effect of racial discrimination on family formation patterns (outside the military) is atheoretical.

A similar comparative study focusing on divorce rates may provide some insight into this issue. If marriage in the military is driven primarily by short-term incentives — to leave the barracks, attain better housing, *etc.*— then marriages in the military should experience higher long-term dissolution rates. On the other hand, if the military provides a stable foundation for marriage by offering immediate and long term career stability, and, in the case of black soldiers, an environment that eliminates racial discrimination, then it may follow that military marriages have lower overall divorce rates. This raises an interesting way to illuminate the causality behind the military marriage trends found in this article. In order to further examine the issue, I am currently conducting additional analyses comparing divorce among the races in the military and in the civilian world.

Notes

1. African Americans exhibit a higher propensity than whites to both join and re-enlist. African Americans are most overrepresented for their population size in the Army branch, at 30%. (Black women are more overrepresented than black men; 46% of enlisted Army women are African American.) Blacks are also 50% more likely than whites to re-enlist with the Army (Moskos & Butler 1996).
2. These are enlisted personnel only; officers were not interviewed in the NLSY dataset.
3. However, I do provide a graph of updated descriptive data from the cross-sectional 1999 Survey of Active Duty Personnel alongside CPS data at the end of the analysis to confirm that my findings extend to present-day trends.
4. See Frankel, Williams, and Spencer's 1983 NLSY79 Technical Sampling Report for more details on the sample design adjustment measures. Except for those who permanently drop out of the NLSY sample, missing data is minimal (the NLSY retention rate as of 1984, the final year of this analysis was 95%). The longitudinal nature of the NLSY data collection assure that marital status, the dependent variable, can be determined even for missed interview years. But some covariates were not collected annually and missing data could not be determined. Fortunately, the frequency of missing data on these variables is quite low. Religious frequency, private school attendance, number of siblings, and residence at age 14 were all missing at a miniscule rate of .01%. AFQT scores and mother's level of education were the only two covariates with a higher proportion of missing information at 7% and 5%, respectively. To avoid having to drop the cases, I imputed the missing data based on the prediction of the surrounding present independent

variables. The missing variables are not correlated with marital status, my dependent variable; however, both AFQT and mother's education level are significantly correlated with military sample status (military personnel are more likely to be missing on AFQT and less likely to be missing on mother education level). Mother's educational level is also significantly correlated with race for the civilian samples, where black respondents are less likely to know their mother's education level. This may reflect the greater degree of nonmaternal extended family residence for blacks than whites. While imputation on these two variables potentially introduces biases, when I ran the models without these two variables, the results were relatively unchanged.

5. I use the constructed weights, strata, and proportional sampling units provided by the NLSY in estimating the descriptive data that follows (Table 1 and Figure 1). As for the multivariate analyses (Tables 2-5), I ran both weighted and unweighted analyses to check for misspecification and found no significant differences (Winship & Radbill 1994). I therefore do not employ weights for the multivariate analyses, having determined that the dependent variable (marital status) is not a function of the NLSY's sampling stratification and thus the standard errors are not adversely impacted. All variables used in the sample selection process are included as independent variables in my analyses.

6. Matching on propensity scores obviates the problem of exponentially limited *exact* matches as the number of independent variables increase. The propensity scores are most easily conceptualized as fitted probabilities (estimated from fitted logits), which predict the likelihood of being in the military or not being in the military.

7. This was an iterative process. After dropping controls with unmatched propensity scores, I reran propensity scores based on those civilian and military members left in the pool before rematching. This ensured the closest possible propensity score match.

8. The final interviews (for the military sample) occurred halfway through 1984. Without retrospective data from 1985, marriage histories for 1984 are incomplete and I must therefore limit nuptial analyses to the penultimate year of survey.

9. The military sub-sample was discontinued when the respondents were in their mid to late twenties. As such, marriage delay and marriage avoidance are indistinguishable here.

10. To simulate what the race outcome might have been with a larger comparison sample of whites, I reran the analysis limiting the sample to civilian whites and black military members (results not shown) and found that black military members were *more likely* to marry than civilian whites, with a coefficient of .270 (odds of 31%), at a significance level at .02. The fact that the military are more likely, rather than equally or less likely, to marry than civilian whites suggests that the lack of significance for the race coefficient in the military model indicates lack of effect and not small sample size.

11. However, there was no significant interaction effect for the race and sex variables in either model.

12. The number of civilian cases matched to each military treatment case averaged approximately 4.6 for the black matches and 5.4 for the white matches. Sample sizes for the treatment military groups decline each year due to dwindling proportions remaining unmarried, as well as attrition from the military. In the first year of observation, when the military population was largest, approximately 5% of each military sample was unable

to locate matches from the civilian pool due to the propensity score caliper specification and the exact matching stipulations. The advantage of strict matching requirements is that resulting matches are close to identical along the range of covariates; the sacrifice is that not all treatments find matches. The matching analysis for the first panel year is representative of only 95% of the military sample; however, the number of matches improves each year as the military sample declines in size, increasing from 97% to 99% and, in the final year, 100%.

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Feminist Attitudes and Support for Gender Equality: Opinion Change in Women and Men, 1974–1998*

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Abstract

This article examines attitudes related to feminism and gender equality by evaluating the trends in, and determinants of, women and men's attitudes from 1974 to 1998. Past accounts suggest two clusters of explanations based on interests and exposure. Using these, we examine opinions on abortion, sexual behavior, public sphere gender roles, and family responsibilities. We find that attitudes have continued to liberalize and converge with the exception of abortion attitudes. The determinants of feminist opinion vary across domains, but have been largely stable. While not identical, the predictors of men and women's opinions are similar. The results suggest the need for more attention to the mechanisms underlying the production of feminist opinions and theoretical integration of both interests and exposure in a dynamic process.

The roles associated with women in U.S. society and attitudes about these roles have experienced continued change in recent decades. A strong movement for gender equality, the increased presence of women and especially mothers in the public workforce, shifting demographics of family and parenthood, and more open laws and norms regarding birth control, sexuality, and abortion have all contributed to a dramatic and widespread liberalization of gender role attitudes. In turn, these attitude changes have implications for individual behaviors and opportunities, and for the functioning of society. Indeed, feminist opinions and gender role attitudes have been connected to marital happiness (Amato & Booth 1995; Kaufman 2000),

** We thank Eric Plutzer for supplying information about variable construction and SAS Code and Joan Aldous, the members of the Notre Dame Working Group on Politics and Movements, and the anonymous reviewers for comments on earlier versions of the article. Direct correspondence to Catherine I. Bolzendahl, Department of Sociology, Indiana University, Ballantine Hall 747, 1020 East Kirkwood Avenue, Bloomington, IN 47405-7103. E-mail: cbolzend@indiana.edu.*

divorce and remarriage (Finlay, Starnes & Alvarez 1985), the division of household labor (DeMaris & Longmore 1996; Greenstein 1996), economic outcomes (Bielby & Bielby 1992; Firestone, Harris & Lambert 1999), and voting behavior (Manza & Brooks 1998).

As feminist ideas have gained acceptance,¹ social scientists have attempted to identify and understand the determinants of gender egalitarian opinion. In particular, many studies document connections between the life circumstances of women (participation in the work force, education, and family characteristics) and their feminist attitudes (Banaszak & Plutzer 1993; Cassidy & Warren 1996; Davis & Robinson 1991; Mason, Czajka, & Arber 1976; Smith-Lovin & Tickamyer 1978; Thorton, Alwin, & Camburn 1983). Other studies have also shown links to ideological predispositions and group consciousness (Reingold & Foust 1998), early political socialization (Powell & Steelman 1982; Rhodebeck 1996), and commitment to egalitarian ideals (Klein 1984).

Although the literature base is substantial and growing, our understanding of feminist attitudes remains incomplete. For example, opinions on gender equity issues have liberalized, but the trajectory of this change is unclear (Thorton et al. 1983). Have attitudes continued on the same trajectory, or is liberalization accelerating, decreasing, or even reversing? Further, as the place of women has been altered in American society, determinants and levels of support for gender equity may be changing, making some factors less relevant and some more so. Moreover, feminist attitudes exist along multiple domains; determinants may differ for reproductive issues, sexual behaviors, family life, or work life.

In addition to assessing trends, more work is needed on feminist attitudes among men. While there has been growing concern with men's attitudes (Banaszak & Plutzer 1993; Cassidy & Warren 1996; Davis & Robinson 1991; Plutzer 1991), understanding the levels and determinants of men's support for feminist issues will require considerably more work.

This study seeks, therefore, to extend prior studies of feminist attitudes by examining data collected over a 25-year period. Beginning from Plutzer's (1988) study which examined how family and work life contributed to feminist attitudes, we expand the analysis to include the General Social Survey data collected after 1986 and examine men's attitudes over the same period. Our results demonstrate that (1) attitudes have continued to liberalize and converge over time, with the exception of abortion attitudes which have largely remained stable, (2) for the most part, the determinants of feminist opinion have been stable over time, and most of the changes that have occurred have been of a depolarizing nature, (3) although some determinants are consistent across different domains (abortion, sexuality, public roles, family life), others are relevant in only some domains, and (4) while some predictors differ for men and women, there are also substantial similarities.

Mechanisms Producing Feminist Opinion

INTEREST-BASED EXPLANATIONS

Most theoretical explanations of attitudes toward feminist issues have their roots in either *interest-based* or *exposure-based* approaches. The most widely used is based on the interest structures of individuals. These interest structures embody the goals that people strive toward (whether they be economic gain, fame, prestige, self-awareness, self-actualization, and so forth). According to this perspective, when a person's defined interests benefit from gender equity ideology, then that individual should be more likely to hold feminist attitudes. For example, given their different interest structures, it is no surprise that women, on the average, favor gender equality more than men since it seeks to provide direct benefits to women — for example, by eliminating wage discrimination (Davis & Robinson 1991).

Beyond simply explaining the aggregate levels of men's versus women's support of feminist issues, the interest perspective also predicts the relationship between feminist attitudes and many personal, family, and work characteristics. One of the most robust findings is that participation in the work force increases support for feminist agendas (Banaszak & Plutzer 1993; Davis & Robinson 1991; Ehrenreich 1983; Gerson 1985; Glass 1992; Klein 1984; Plutzer 1988, 1991; Thorton et al. 1983). Plutzer (1991), drawing on arguments about the bases of interests developed by Wildavsky (1987, 1994), argues that work status predicts feminism because employed women benefit from improving women's situation in the workplace, while those who stay at home in traditional arrangements do not. In fact, women who stay at home may even have an interest in maintaining inequality in the workplace given that it produces indirect benefits through their male spouses (see also Davis & Robinson 1991; Ehrenreich 1983).

The interest-based perspective is also useful when examining the determinants of men's attitudes (Kane & Sanchez 1994). Men have received less attention in this domain than women, but interests figure strongly in explanations of men's attitudes and of how they differ from women's. For example, while interest-based arguments predict that work-force participation is important for women but not for men, *spouse's* employment should be highly relevant for men (Davis & Robinson 1991; Huber & Spitze 1981; Mason & Lu 1988; Smith 1985; Spitze & Waite 1981;), but less so for women. This may occur because men benefit indirectly from feminist returns to their spouses — while women do not — and therefore men's feminist attitudes can be produced by their own interest structures.

EXPOSURE-BASED EXPLANATIONS

The fundamental concept in exposure-based approaches is that individuals develop or change their understanding of women's place in society and their attitudes toward feminist issues when they encounter ideas and situations that resonate with feminist

ideals. Although variants of this approach emphasize personal experience, education, or socialization, all three are driven by the idea that exposure induces more progressive attitudes about gender.

The most common exposure-based explanation reflects the ubiquitous finding that work-force participation increases support for gender equality. Rather than flowing from different interests though, employment is thought to produce feminist attitudes because entering the workplace (1) exposes women to discriminatory situations which in turn lead them to acknowledge inequality, (2) dispels myths about women's capabilities to perform in the work place (Banaszak & Plutzer 1993; Davis & Robinson 1991; Gerson 1987; Klein 1984;) and (3) allows women to encounter social networks of nontraditional women (Rhodebeck 1996). Workplace experience is also thought to demonstrate that women can adequately manage a family when working (Powell & Steelman 1982) and to show women the possibilities for greater independence from men via financial self-support (Klein 1984).²

A closely related variant of this argument reflects the link between education and support for gender equality (e.g., Cassidy & Warren 1996; Huber & Spitze 1981; Mason & Lu 1988; Plutzer 1988; Powell & Steelman 1982). Here it is not direct experience that is most important, but exposure to the *ideas* of feminism (Davis & Robinson 1991). Women can gain exposure to these ideas through the workplace, but they can also experience the "enlightenment" effect through education, which combats gender stereotypes and provides alternative interpretations of women's roles in the social world (Rhodebeck 1996).

The third exposure-based argument views socialization as the key process and ties support for gender equality to background factors like mother's work status and mother's education. Early contact with feminist ideas and life experiences that reduce acceptance of gender stereotypes can assist both men and women in developing a political consciousness about gender equity issues (Banaszak & Plutzer 1993; Klein 1984; Powell & Steelman 1982; Rhodebeck 1996; Smith 1985; Tedin et al. 1977). Some have suggested that the political socialization process is particularly important for men, assuming that men attend less to gender inequality, and therefore their consciousness must be raised by vicarious exposure through significant others (Klein 1984; Reingold & Foust 1998).

Predictors of Feminist Attitudes

The interests and exposure approaches make many predictions about personal and contextual characteristics that should produce support for feminist ideas and those that should be related to more traditional ideas. It is impossible to separate these variables into completely exclusive categories, thus for our presentation we cluster them into three groups: those related to employment, those reflecting family structure, and background and socialization indicators. The interest- and exposure-

based explanations make the same predictions about some variables — in part because of the cyclical, interactive relationship between interests and exposure — necessarily limiting the competitive nature of the test.

EMPLOYMENT

The most consistent and robust finding in this literature links feminist attitudes with women's participation in the workforce. We examine six variables reflecting employment: past and present participation in the workforce (by the respondent and spouse), the number of hours worked, and the proportion of the household income earned by the respondent.

Labor-Force Participation

Work experience among women may increase alignment with feminist concerns because of women's interests. Feminists advocate fairness in employment practices and therefore, those who experience discrimination may align with feminism in hopes of reducing or eliminating it (Glass 1992; Klein 1984; Warner 1991). How directly feminism reflects a woman's interests may depend on her relative commitment to domestic and nondomestic roles. In fact, feminist concerns about workplace equity may actually work against the interests of those in traditional family arrangements. When women demand equitable pay in the workplace, employers will be less willing to pay a "family wage" to men (Davis & Robinson 1991; Ehrenreich 1983; Gerson 1985, 1987; Plutzer 1991). In addition, working can also change women's interests in the home arena because "second shift" issues about household duties and child care may develop (Hochschild 1989; Warner 1991).

Klein (1984) has stressed *exposure* that occurs through employment because employment (1) provides the confidence to compete economically with men, (2) reveals discrimination of which homemakers were unaware, and (3) raises expectations for financial independence. These three outcomes of job holding help women reject stereotypes, revise gender roles, and open up to political arguments supporting feminism. In addition, working facilitates feminism because working women encounter social networks of other working women who induce increased feminist consciousness (Banaszak & Plutzer 1991; Rhodebeck 1996).

With respect to work influences, one key difference separates the interest-based and exposure-based approaches. The interest-based perspective emphasizes the *present* situation of women. Whether or not a woman has worked in the past, it is her current situation that defines her interest structure. Therefore, current work status should have a stronger effect on attitudes than past work experience. The exposure argument depends more on whether the woman has *ever* worked and thus had her consciousness raised by that experience. Finally, given that male employment is normative and only tiny proportions of men are primarily

homemakers, a man's work status is expected to have little relationship to his feminist attitudes.

Proportion of Income and Hours Worked

Variables that reflect categorical differences in employment (in the workforce or not) may not be adequate to capture the effect of working on feminist attitudes. If exposure is at issue, more time at work may mean more experience with discrimination and greater contact with nontraditional social networks (Cassidy & Warren 1996). A woman's support for gender equality may also depend on her income relative to her spouse. Women who earn more of the family income have a greater interest in workplace equity; women whose husbands earn most of the family income have much less.³

Though hours worked is not expected to affect men's attitudes (because it will not increase exposure to feminist concerns), the portion of family income may (Wilkie 1993; Zuo & Tang 2000). Men earning smaller proportions of family income may be less invested in traditional family roles in which the man is the breadwinner, and may have lower expectations that women will dominate household and child-rearing responsibilities.

Spouse Work Status

Just as a man's work status does little to predict his own attitudes about gender issues, a man's work status should also have little effect on his wife's attitudes. On the other hand, a woman's work status could have a substantial effect on her male spouse's attitudes (Cassidy & Warren 1996; Huber & Spitze 1981; Smith 1985). As Plutzer (1991) has noted, there is a critical divide between families that contain an employed woman and those that do not. This difference affects both the woman and her spouse (Banaszak & Plutzer 1993; Mason & Lu 1988). From the exposure perspective, men's employed wives provide them with greater awareness of gender discrimination (Smith 1985). From the interest perspective, Davis and Robinson (1991) expect men to recognize that discrimination against their spouses reduces family income.⁴

FAMILY STRUCTURE: MARITAL STATUS AND CHILDREN

One of the most important markers of gender traditionalism is family structure (Gerson 1985; Plutzer 1988, 1991). Specific combinations of marital status and family size produce interest structures that drive women's attitudes on feminist issues. In particular, divorce forces women into nontraditional roles because they usually need to support themselves financially — resulting in both a more demanding family life and an expanded role in the work force. Divorce also influences men to be less traditional in their views (Plutzer 1991), but not

necessarily more feminist. Divorced men may favor sexual openness and greater access to abortion, but mainly because these better suit their postmarriage lifestyle.

Plutzer (1991) also used the number of children to identify "traditional" family circumstances. He reasoned that married couples with many children occupy the most traditional family arrangement, and therefore should have less progressive values about gender. A less common argument about family structure suggests that time is the critical issue. Women who experience higher demands from household activities and childrearing will have less time for outside activities and therefore receive less exposure to feminist ideas (Thornton et al. 1983; Warner 1991). This exposure-based argument does not apply to men, however, because their outside activities are neither as constrained by family demands nor particularly likely to produce exposure to feminist ideas.

BACKGROUND AND SOCIALIZATION

Beyond work and family life, there are many background characteristics thought to influence feminist attitudes. Often these variables are used as demographic controls with scant theoretical rationale. In other cases, the same variables have been the primary focus and derived from interest or exposure arguments. In particular, background factors have often been viewed as indicators of political socialization that encourage early development of a more or less feminist orientation (Alwin & Krosnick 1984; Barak, Feldman, & Noy 1991; Bohannon & Blanton 1999; Klein 1984; Wilke 1993), thereby reflecting an exposure mechanism.

Age

Younger women are expected to have more supportive attitudes toward feminism primarily because they are less likely to be invested in traditional life arrangements. They are more likely to have careers outside the home, more likely to be financially independent, have fewer children, and so forth. Some have argued from the interest perspective that even among women who work and therefore benefit from egalitarian agendas, younger women will be more invested given the a longer time they will have to benefit (Davis & Robinson 1991). Women (and men) of different age cohorts were also socialized differently about women's roles in the world and, therefore, cohort effects related to the sociohistorical environment can also play a role (Brewster & Padavic 2000; Davis & Robinson 1991; Lipset & Ladd 1971; Powell & Steelman 1982; Tedin et al. 1977). Because the political environment has long been experiencing a liberalizing trend, however, such cohort effects should be captured by the age variable.

Education and Mother's Education

Education is mainly thought to have effects because it provides exposure to egalitarian ideas and inhibits acceptance of gender myths and stereotypes (Brooks & Bolzendahl 2004; Cassidy & Warren 1996; Davis & Robinson 1991; Rhodebeck 1996), but education may change interest structures as well. Women with higher levels of education are more likely to desire careers and have more to gain by eliminating discrimination such as the glass-ceiling effect.

Mother's education is one of the clearest examples of a socialization variable (Liao & Cai 1995; Tallichet & Willits 1986). Because mothers provide the primary female model for most children, those mothers who have higher levels of education, and thus greater openness to feminist ideas, are more likely to pass on their gender-egalitarian ideals to their male and female children (Powell & Steelman 1982).⁵

Race

Although the relationship between race and feminism is complex (see Kane 2000), generally speaking, analysts have expected and documented a more gender-egalitarian stance among African Americans than among whites. This difference seems to emerge both from African American women's higher rates of participation in the labor force (Ransford & Miller 1983) and African Americans' higher commitment to egalitarianism in general (Fulenwider 1980; Harris & Firestone 1998; Mason & Bumpass 1975).

Location: Regions and Urban Environment

Regions of the U.S. provide different cultural contexts for feminism — contexts that produce socialization and interest-based pressures toward more or less traditional attitudes. The typical hypothesis is that those in the South will be less progressive given the more traditional cultural context. Likewise, urban environments provide greater heterogeneity in opportunities and ideological exposure than rural environments and, therefore, should be populated with individuals more favorable to feminism.

Religion and Religious Participation

Although some religious institutions promote egalitarian gender ideals, religious participation is generally expected to reinforce traditional viewpoints and reduce support for feminism (Hertel & Hughes 1987; Peek, Lowe & Williams 1991). In addition, different religious traditions have markedly different stances toward gender roles. Like race, this is a complex topic that cannot be thoroughly examined here (see Bolzendahl & Brooks n.d.; Davis & Robinson 1996; Sherkat & Ellison 1999), but findings generally indicate that conservative Protestants are the least supportive of nontraditional gender roles and Jews are the most supportive, with

Catholics and mainline Protestants falling somewhere in between (Greeley 1989; Hoffman & Miller 1997, 1998).

Political Identification

The causal connection between political identification and support for feminist issues remains a thorny issue. Demographic characteristics and historical cohort effects are thought to simultaneously affect the formation of gender role attitudes and political identification (Alwin, Cohen & Newcomb 1991; Schnittker, Freese & Powell 2003). Complicating matters further, evidence indicates the political institutional alignment between feminist concerns and party politics has changed over the time period we examine (Adams 1997; Manza & Brooks 1999) and Americans' are increasingly placing their support for feminist issues in a larger rights-based perspective, which may increase political effects over time (Brooks & Bolzendahl 2004). Nevertheless, controlling for political identification is important since political socialization is unlikely to be completely captured by indirect socialization indicators.⁶ Political ideology has also been suggested as the primary determinant of pro-feminist sentiment among men because they lack many of the direct life circumstances that influence them via interest- or exposure-based mechanisms (Klein 1984; Reingold & Foust 1998). However, the inherent difficulties in separating political identification from other demographic or institutional influences require tentative interpretations of the variable.

Measuring Feminist Attitudes

The task of measuring feminist attitudes is not completely straightforward. Past studies have used questionnaire items about a variety of social concerns to tap individuals' stances toward feminism. In the present study, we examine items from the General Social Survey (Davis, Smith & Marsden 1999) that represent four domains of feminist concerns: opinions on abortion, sexual behavior, gender roles in the public sphere, and family responsibilities. Although these four domains cannot provide a complete representation of feminist concerns, they do capture a series of issues that have consistently been at the core of the feminist agenda over many years (Plutzer 1988). Furthermore, these four domains provide for comparability with prior studies and because the GSS has consistently repeated these items with exact wording over many years, we can fruitfully examine trends in the variables and in their relationships to predictors.⁷

Abortion

For feminists, abortion is part of a larger concern with a woman's right to control her body. Divergent opinions about abortion have long been connected to differences in gender ideologies among both women and men (e.g., Luker 1984). Our indicator of one's position on abortion uses the number of situations (of the seven queried about on the GSS) in which an individual would find legal abortion justifiable.⁸ Those scoring 0 are firmly against abortion under any circumstances. Those scoring 7 would allow abortion for any reason.

Sexual Behavior

Opinions about sexual behavior are also linked to feminist concerns about bodily and reproductive rights. Further, moral sentiments about sexual conventions often differentiate feminists from the "new right" who believe that sexual behavior is only appropriate for procreation and within a traditional marital union (Luker 1984; Plutzer 1988, 1991), making both premarital and homosexual sex unacceptable (see Klatch 1987). Opinions about permitted sexual behaviors have also been previously linked to the rejection of gender stereotypes, traditional sex roles, and a double standard that restricts sexual activity for women more than men (e.g., Komarovsky 1991).

Given this, past researchers have linked attitudes toward same-sex, premarital, and extramarital sexual behavior with gender attitudes (DeLamater 1981; Reiss 1986; Reiss, Anderson & Sponaugle 1980). With respect to the GSS, Plutzer (1988, 1991) has employed a two-item scale combining items asking if same-sex and premarital sex are "always wrong, almost always wrong, wrong only sometimes, or not wrong at all." Our preliminary analyses showed only a moderate correlation between the two items (Cronbach's $\alpha = .59$) and that they were subject to substantially different trends. Further, because a detailed analysis of the same-sex item has been recently published (Loftus 2001), we report results for just the premarital sex item.

Gender Roles in the Public Sphere

Feminism has challenged traditional notions about limiting women's roles to the private sphere of home and family. Opponents to these challenges argue that innate differences determine appropriate roles for women and men (Klatch 1987; Luker 1984; Popenoe 1993), including public leadership in the political sphere. Again following Plutzer (1988), we assess a respondent's attitudes on this issue using a scale made up of three items asking if: (1) women should run their homes and leave running the country to men; (2) the respondent would vote for a woman for president; (3) men are better suited for politics.

Family Responsibilities

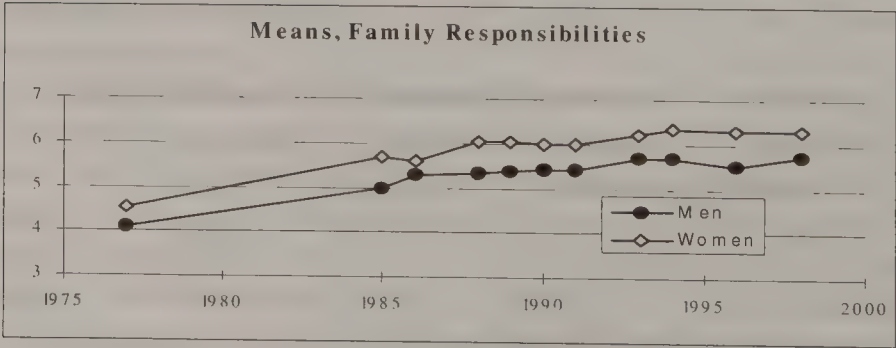
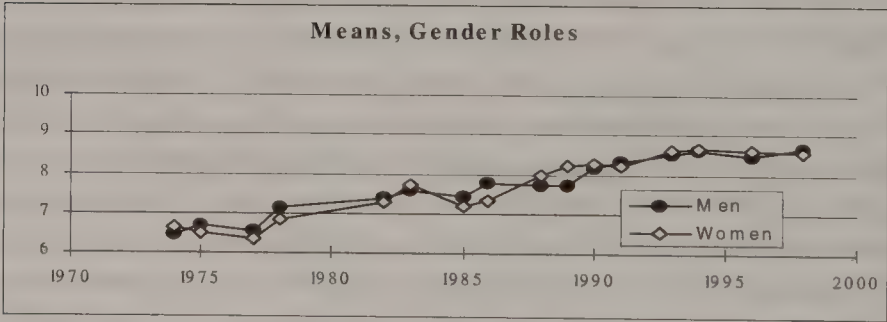
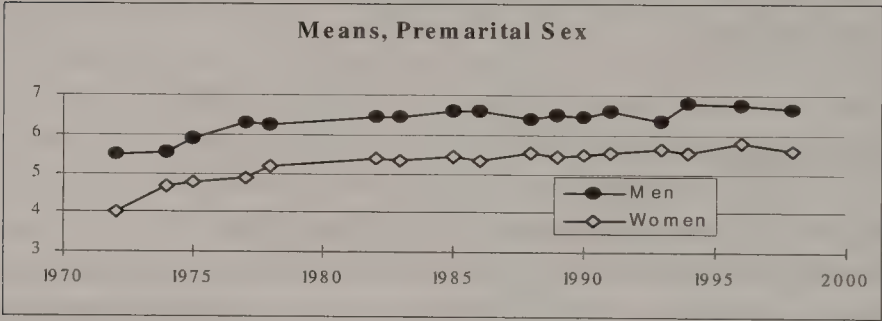
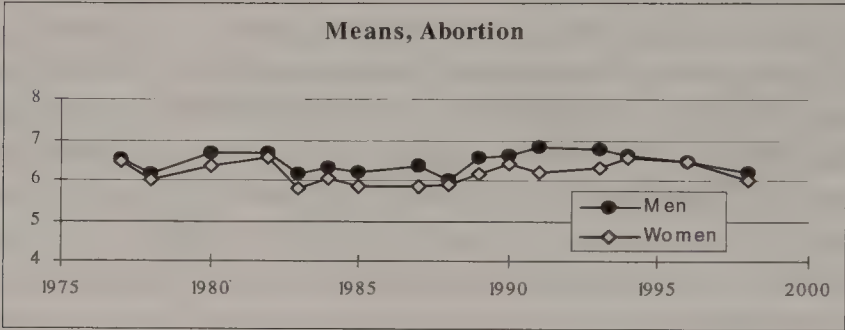
Proponents of gender equality also challenge the assumption that women are primarily responsible for making a comfortable home and providing care for children. Opponents, on the other hand, feel that attempting to fulfill the roles of wife and mother while also performing employment roles hurts everyone in the family (Popenoe 1993). To evaluate opinions on family responsibilities, we created a scale using respondents' opinions on four statements: (1) a working mother can establish just as warm and secure a relationship with her children as a woman who does not work; (2) it is more important for a wife to help her husband's career than have one herself; (3) a preschool child is likely to suffer if her/his mother works; and (4) it is better if the man is the achiever outside the home and the woman takes care of the home and the family (see Brewster & Padavic 2000 for an analysis of the individual items).⁹

Data and Analyses

The data we use are derived from the General Social Survey, 1972–1998 (Davis, Smith & Marsden 1999). The GSS is a nationally representative survey of noninstitutionalized adults in the U.S. using a cross-sectional design. This dataset has often been used to study attitudes relating to feminism and therefore aids in comparing our findings to past results (Brewster & Padavic 2000; Firestone, Harris & Lambert 1999; Hout 1999; Mason & Lu 1988; Plutzer 1988; Wilke 1993). Because questions change and some are asked in rotation, many variables are not available for all years of the survey; therefore our study is limited to those years in which the relevant variables were included. To compare models over time, we began by calculating regression models for each individual year. After examining those results, we found we could simplify the analysis without obscuring the main findings by pooling the data into two time periods. The time periods chosen, 1974–86 and 1987–98, divide the data into two approximately equal periods. The first period also matches one period used in prior studies (see Mason & Lu 1988; Plutzer 1988) thereby aiding comparability. Given expectations that women will have different predictors of feminism than men, we also analyzed men separately from women resulting in four sets of results (men period 1 and period 2; women period 1 and period 2).¹⁰

The independent variables used in the analysis are discussed above and throughout the results section. Missing values on independent variables were replaced with race-sex subgroup means. Those with missing religion information were included in the “none/other” category. Analyses presented herein used ordinary least square (OLS) regression. We also calculated results using ordinal logistic regression, but the results were not substantively different and therefore, for the sake of simplicity, we present the OLS result only.

FIGURE 1: Feminist Attitudes 1974-1998, Means



Results

DESCRIPTIVE TRENDS

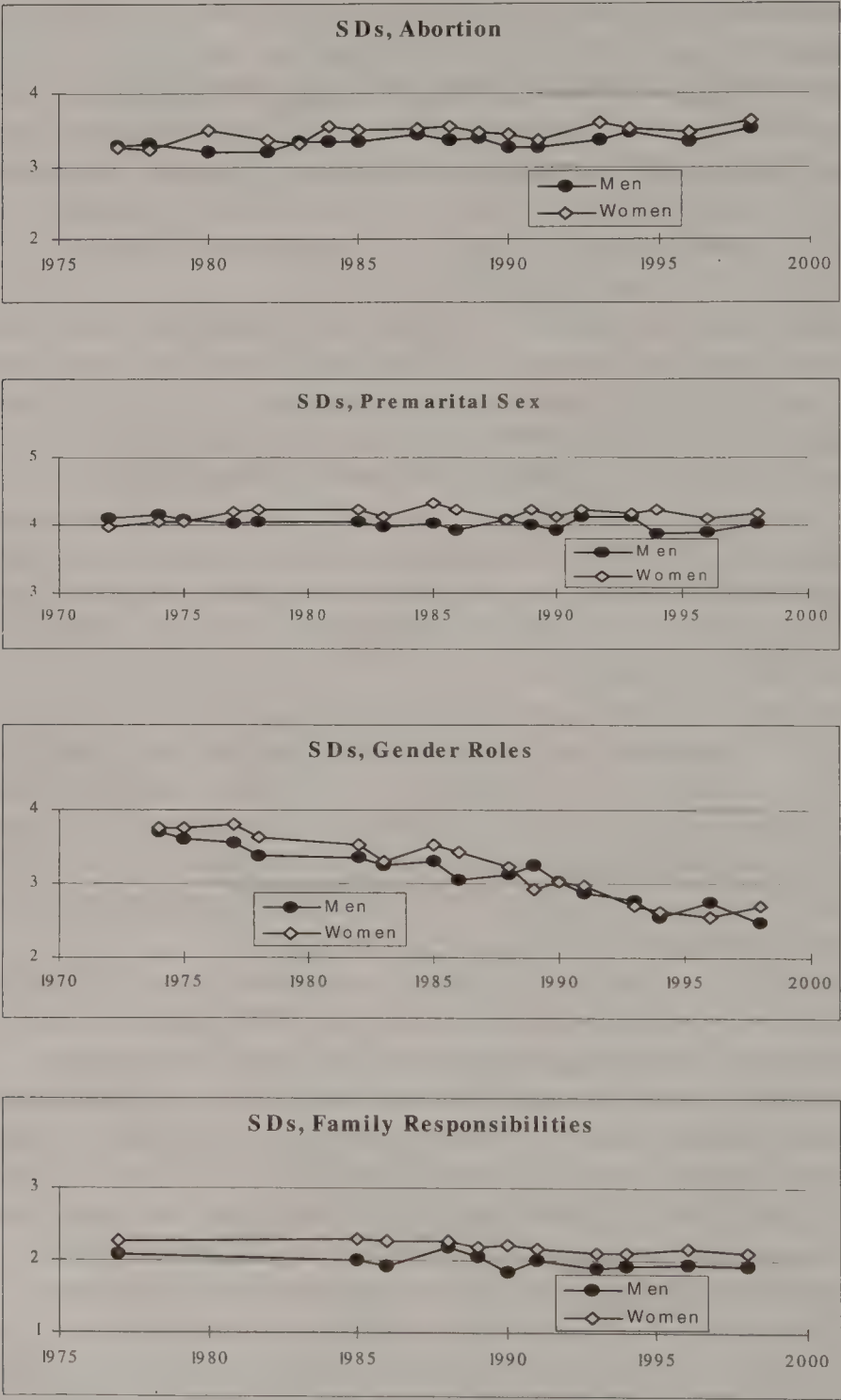
Attitudes related to feminism have been steadily liberalizing over the past 30 years (Bohannon & Blanton 1999; Cherlin & Walters 1981; Mason & Lu 1988). Although surges in “new right” activism might have slowed or reversed these trends, we expect that a generally positive trend will occur across the four domains of feminism we examine. Beyond this general pattern though, trends may differ for men and women. In addition, there is a question of polarization. As opinions continue to liberalize, it is possible that they may be converging toward unanimity or diverging in ways that reflect emerging political cleavages.

Figures 1 and 2 elucidate these questions by showing the means and standard deviations, respectively, for each of our dependent variables across all years in the study. As expected, the general trend in attitudes is positive — indicating a continuing liberalizing trend.¹¹ The one exception is the abortion scale, for which the overall trend is flat, despite significant fluctuations from year to year. Men always supported abortion more than women, but this gap is actually quite small, achieving significance in only a minority of the years in the study. While the opinion trend for abortion is flat, the standard deviations show a slight rise over time — reflecting increased polarization. This finding is consistent with DiMaggio, Evans, and Bryson’s (1996) study that examined many social attitudes over the prior 20 years and found that only abortion attitudes have become more polarized. Given Hout’s (1999) argument that in the process of leading the debate on abortion, women have staked out both extremes, we would expect more polarization among women than men and a substantial increase in polarization. This notion is only mildly supported in the data: women have slightly higher standard deviation scores than men (which is not significantly different in most years of the study) and do not appear to be polarizing at a faster rate than men.

The remaining three sets of graphs all demonstrate substantial liberalization of attitudes among both men and women since the 1970s. In terms of attitudes about premarital sex, both men and women have become more permissive. There is a consistent gap, however, between men and women, with men having significantly more liberal attitudes every year. Standard deviations for men and women are quite similar and remain consistent, showing little evidence of changing polarization.

The trends related to gender roles are straightforward. The means and standard deviations for men and women with respect to public sphere gender roles are virtually indistinguishable from one another. Second, there has been a consistent trend upward in opinion and the standard deviations have been consistently diminishing — indicating that there is increasing agreement on these issues. Mean levels of support for egalitarian family responsibilities have also risen steadily, although women are always more egalitarian than men, the gap being significant and generally stable. There is also a marginally significant decrease in standard

FIGURE 2: Feminist Attitudes 1974-1998, Standard Deviations



deviations, indicating some convergence of opinion. The lower standard deviation scores for men suggest that there is somewhat more agreement among them than among women in opinions about family roles.

In summary, the trends over time for men and women indicate liberalization and convergence of opinion in all domains except abortion, an area in which the both sexes are maintaining levels of support and experiencing slight polarization of opinion. These general findings give us a broad sense of how men and women support feminism, but to complete the picture, we need to examine specific determinants of opinion within each domain.

PREDICTORS OF FEMINIST ATTITUDES: WOMEN

Tables 1 and 2 present the results of the regression analyses (Table 1 for women and Table 2 for men). In each table, two regression models are presented for each of the four dependent variables. Of each pair, the first model reports the results using all data available for 1974–86 and the second model for 1987–98 period. (Superscripts indicate a significant difference ($p < .05$) between the respective coefficients across the two time periods.¹²)

In addition to the variables discussed above, we also included a control variable indicating the year of the survey. This variable tests for a trend in the dependent variable within each time period, net of the other variables. For example, the negative coefficient in the women's period one abortion model indicates that abortion opinion experienced a conservative shift during that period. In contrast, women's opinions about premarital sex, gender roles, and family responsibilities all liberalized during that same period. In period 2, the year coefficients in all four models became smaller,¹³ indicating that there was less of a trend in the second period. Thus, we see that these liberalizing trends are slowing down. Likewise, the conservative trend in abortion attitudes is also leveling off.

Employment

Consistent with previous studies, employment is a consistent predictor of pro-feminist attitudes among women. Across all four domains in both time periods, working women are significantly more liberal than their counterparts who are not in the workforce. Those who have been in the labor force in the past but are not presently involved are more mixed — sometimes prior work increases support for feminist positions, other times it does not. Thus, work status is an important division among women, but it is not clear whether their current status (the interest perspective) or having any experience in the work force (the exposure perspective) is most important.

The gradations among working women in terms of pay and hours worked contribute little to feminist attitudes beyond what comes from simply being employed. The one clear exception is the positive effect of hours worked on

TABLE 1: Determinants of Feminist Attitudes for Women, 1974-1986 and 1987-1998

	Abortion		Premarital Sex		Gender Roles		Family Responsibilities	
	Period 1	Period 2	Period 1	Period 2	Period 1	Period 2	Period 1	Period 2
<i>Employment</i>								
In labor force	.50*	.39*	.47*	.73*	.85*	.61*	.88*	.84*
Previous in lab. F.	.29*	.02	.31*	.45*	.47*	.28	.15	.28*
Proportion income	-.24	-.05	.26	.24	.08	-.12	-.30	-.03
Hours worked	-.00	.01*	-.00	-.00	.01	.00	.01*	.01*
Spouse in labor force	.66	.60	-1.18	1.45	.18	-.38	.34	.49
Spouse previously in LF	.93	1.80*	-1.04	1.26	.18	-.54	.36	.35
<i>Family structure</i>								
Widowed	-.65*	-.33*	-.52*	-.55*	-.28	-.42*	-.42*	-.37*
Married	-.29	.02	-.67*	-.93*	-.32	-.28*	-.50*	-.42*
Never married	-.58*	-.15*	-1.11*	-.65 ^a	-.50*	.12	-.50*	-.20*
Number of children	-.12*	-.16*	-.13*	.01 ^a	.03	.11 ^a	-.01	.03*
<i>Background and socialization</i>								
Age	.01	.01*	-.07*	-.05 ^a	-.05*	-.03 ^a	-.03*	-.03*
Education	.21*	.20*	.05*	.08*	.24*	.18 ^a	.14*	.11*
Mother's education	.03	.04*	.07*	-.01 ^a	.06*	.02 ^a	.02	.02*
White	.41*	-.17 ^a	-1.41*	-.11 ^a	-.37*	-.05	-.31*	-.16*
South	-.54*	-.21 ^a	-.95*	-.59 ^a	-.64*	-.27 ^a	-.03	-.01
Midwest	-.83*	-.58*	-.43*	-.18	-.09	-.04	.14	.07
Urban	.37*	.43*	.41*	.23*	.21*	.14*	.09	.01
Catholic	-1.04*	-1.05*	.19	.39*	.23	-.10	-.09	-.16*
Baptist/Sect	-.81*	-1.15 ^a	-.98*	-1.15*	-.42*	-.58*	-.17	-.41 ^a
Jewish	.30	.75*	.81*	1.30*	.95*	-.18 ^a	.06	-.16
None/other	-.30	-.38*	-.34	-.66*	.31	-.49 ^a	.02	-.31*
Religious attendance	-.36*	-.36*	-.45*	-.53*	-.11*	-.12*	-.09*	-.11*
Political identification	.28*	.45 ^a	.39*	.46 ^a	.23*	.21*	.30*	.24*
Year	-.08*	-.02 ^a	.07*	-.00 ^a	.08*	.03 ^a	.12*	.01 ^a
Constant	163.45	40.00	-126.28	11.50	-144.15	-.57.14	-.223.62	-15.55
R ²	.258	.271	.345	.338	.240	.200	.337	.283
N	5,226	5,950	7,355	5,958	5,424	5,610	2,390	5,971

^a Period 2 coefficient significantly different from period 1 at p < .05

* p < .05

attitudes about family responsibilities. Again, these findings provide mixed support for the interest and exposure perspectives. The interest perspective predicts that proportion of income should affect feminist attitudes — especially about workplace issues, but it does not. On the other hand, the findings regarding hours worked provide some support for the interest perspective — women who work longer hours want relief from sole responsibility for the household and children. As expected, spousal employment made little difference for women in any of the four attitude domains.

Family Structure

Our finding that divorced women are significantly more likely to hold feminist attitudes is consonant with previous research. Across all eight models, divorced women have significantly higher scores than at least one of the other marital status groups. The effect is most robust in the premarital sex domain and the family responsibilities domain. These results seem to support the interest perspective under which divorce changes the needs and interest structures of women.

The results regarding number of children are more varied. With regard to abortion and premarital sex, having more children is accompanied by more conservative attitudes (although the effect on premarital sex seems to be disappearing over time). This same negative effect does not appear with respect to public-sphere gender roles or family responsibilities. In fact, there seems to be an emerging *positive* effect of the number of children in both of these domains. This latter result contradicts exposure-based arguments that suggest encounters with feminist ideas are limited by child-rearing demands. Instead, these patterns may reflect interest-based arguments, indicating that greater child-rearing demands lead women to want more assistance from their spouses and to desire greater representation of women's concerns in the public sphere.

Background Characteristics

Net of other variables, age generally has a negative effect on attitudes toward gender role equity (except for abortion). Given the overall liberalizing trend in attitudes, this trend is an expected outcome of younger women's greater investment in feminist outcomes in the workplace and home.

Another extremely robust effect, as in past studies, is education. In all eight models, more education is associated with more liberal attitudes. Whether this effect flows from exposure or interest structures is not clear, but the positive effect for men (below) supports an exposure-based approach to education. Mother's education, as the clearest socialization variable, has a positive effect when it is significant, but is inconsistent both in effects and trends. Thus, we would conclude that socialization from a woman's mother plays a weak role in determining her feminist attitudes.

TABLE 2: Determinants of Feminist Attitudes for Men, 1974-1986 and 1987-1998

	Abortion		Premarital Sex		Gender Roles		Family Responsibilities	
	Period 1	Period 2	Period 1	Period 2	Period 1	Period 2	Period 1	Period 2
<i>Employment</i>								
In labor force	-.36	.06	.50	-.19	.40	.55	.10	.05
Previous in labor force	-.71	.28	.49	-.44	.30	.33	.00	-.11
Proportion Income	-.36	-.07	.10	.29	-.14	-.06	-.37*	-.27*
Hours worked	-.00	-.00	-.00	.00	.01*	.00	.00	.00
Spouse in labor force	.73*	.83*	.53*	1.51 ^a	.90*	1.42*	1.11*	1.12*
Spouse previously in labor force	.57*	.31	.45*	1.17 ^a	.69*	1.38 ^a	.46*	.58*
<i>Family structure</i>								
Widowed	-.48	-.26	-.10*	-.53	.57	-.33	.06	-.04
Married	-.31	-.25	-.104*	-.115*	.14	-.41*	-.18	-.22*
Never married	-.54*	.05 ^a	-.131*	-.83*	.10	.07	.14	-.06
Number of children	-.18*	-.15*	-.13*	.01 ^a	.01	.04	-.02	-.04*
<i>Background and socialization</i>								
Age	.02*	.02*	-.05*	-.03 ^a	-.02*	-.02*	-.03*	-.02*
Education	.17*	.15*	.08*	.08*	.17*	.15*	.09*	.08*
Mother's education	.05*	.08*	.04*	.04*	.08*	.06*	.06*	.04*
White	.32*	.01	-.160*	-.17 ^a	.42*	.41*	-.30*	-.08
South	-.35*	-.24*	-.53*	-.37*	-.69*	-.34 ^a	-.06	.10
Midwest	-.41*	-.34*	-.17	-.16	-.01	.14	-.07	.26 ^a
Urban	.25*	.28*	.31*	.31*	.11	.04	.04	.00
Catholic	-.112*	-.81*	.24	.41*	.02	-.26*	-.06	.09
Baptist/sect	-.84*	-.104*	-.87*	-.113*	-.45*	-.37*	-.14	-.19*
Jewish	1.12*	.67*	.61*	.55	.48	-.24	.26	.46*
None/other	-.01	-.45*	-.23	-.60*	-.09	-.40*	.07	.03
Religious attendance	-.39*	-.42*	-.52*	-.55*	-.09*	-.08*	-.11*	-.08*
Political identification	.16*	.38 ^a	.32*	.36*	.25*	.15*	.13*	.21 ^a
Year	-.04*	-.04*	.06*	-.01 ^a	.08*	.07*	.10*	.02 ^a
Constant	76.85	85.42	-109.13	27.34	-153.70	-143.72	-194.17	-29.31
R ²	.254	.239	.297	.290	.166	.126	.306	.212
N	4,040	4,544	5,936	4,511	4,247	4,076	1,844	4,434

^a Period 2 coefficient significantly different from the period 1 at $p < .05$

* $p < .05$

Race is a variable that seems to be declining in significance as a predictor of feminism among women.¹⁴ In the earlier period, Whites were more liberal on abortion, and significantly less liberal on premarital sex, gender roles, and family responsibilities. However, we see marked declines in these coefficients in the second period indicating that the racial differences are rapidly disappearing.

Generally speaking, the results regarding regions of the country and the urban/rural distinction behave as expected. Those in the south are consistently more conservative, although Midwest residents are also quite conservative on abortion. When it comes to family responsibilities, however, there are no significant differences across regions. Living in an urban environment increases support for liberal positions on abortion, premarital sex, and gender roles, but not family responsibilities.

Religious tradition has mixed effects depending on the domain.¹⁵ Catholics are relatively unlikely to support abortion but remain similar to Mainline Protestants in the other domains. Baptist denominations produce consistently conservative opinions, while Jews tend toward the liberal side. Those in the “none and other” religious category are seemingly becoming more conservative. They show no significant effects in the first period, but a significant negative effect in all four domains in the second period.¹⁶ Religious service attendance has a consistent negative effect on all four domains which supports the notion that greater religiosity produces greater attachment to traditional outlooks on gender roles and sexuality.

Finally, net of all other variables, liberal political identification¹⁷ consistently predicts support for feminism. This finding indicates that there may be more work to do in assessing the background factors that produce joint support for liberal political identification and feminism, as well as investigating the impact of cultural changes in the meaning of “liberal” and “conservative.”

Changes in Predictors

One important question we consider whether the determinants of feminist opinion are changing as societal shifts in the roles of women and men continue. The results for women show that most predictors have not experienced significant changes over time. Nevertheless, there are important patterns among those that have changed. Of the 24 coefficients that changed significantly over the two time periods, 18 have become smaller, i.e., have become weaker predictors. In other words, opinions have become less polarized along these variables. For example, whereas Whites used to be substantially separated from others on the issue of abortion, they no longer are. Thus, there is no longer evidence of racial polarization about abortion.

Those variables that have seen significant *increases* indicate areas that may be growing in salience and therefore demarcate increasing polarization. For example, among religious groups, members of the Baptists and Sects grouping have become more differentiated from Mainline Protestants with respect to abortion. Of the six coefficients for women that indicate stronger relationships, three are indicators of

religion and two of political identification. Political identification is increasing in importance with respect to abortion and premarital sex but not gender roles or family responsibilities. These combined results indicate that while polarization about feminist issues is generally decreasing among women, cleavages along religious and political lines are becoming more salient in individuals' alignment on feminist issues — particularly on abortion (see also Abramowitz 1995; Adams 1997; Hout 1999; Layman 1999)

PREDICTORS OF FEMINIST ATTITUDES: MEN

The results for men are presented in Table 2. The control variable for the year of the survey indicates a negative trend in abortion opinion during both periods, meaning that men experienced a conservative shift in both periods. In the other domains (except premarital sex in period 2), the year variable has a positive coefficient indicating that opinions liberalized. However, for premarital sex and family responsibilities, coefficients become smaller indicating significantly less liberalization during the second period.

Employment

As expected, the employment status of men, their income relative to their spouses, and their hours worked have little impact on their feminist opinions¹⁸ with one notable exception: Those men producing higher proportions of family income had lower scores on the family responsibilities scale. Consistent with the interest-based perspective, the closer men were to being the sole wage earner, then the greater their expectations that women would take more responsibility for family functions.

Much more important in determining men's feminist attitudes are the spouse work life variables. Here we see that if a man has a spouse in the labor force, he is considerably more liberal in his feminist attitudes across all four domains.¹⁹ It appears that any participation in the labor force (past or present) creates the effect in all four domains, which supports the exposure based argument discussed above. The effect on family responsibilities, however, is much stronger if the spouse is currently in the work force compared to those who once were. These patterns, then, support both interest-based and exposure-based explanations: men's interests are indirectly served by the advancement of their working wives' careers and working women provide their husbands with a greater awareness of gender equity issues.

Family Structure

Family structure variables are more varied in their effect. As expected, divorced men have more sexually open attitudes, yet being divorced does not produce more generally progressive attitudes in other domains. These patterns suggest that an interest-based mechanism is at work — one that does not necessarily produce

feminist attitudes among divorced men, but rather produces greater openness to nonmarital sexual relations.

The effect of children is similar to that for women, and for both genders, having children is the only affect that consistently decreases support for abortion attitudes in both periods. Further, while women with children in period two are significantly more liberal regarding family responsibilities, men are significantly more negative, indicating that men with children have more traditional family expectations. Neither exposure nor interest arguments make a straightforward prediction about how this variable should affect men's attitudes. As a whole, however, Plutzer's (1991) expectation that the number of children will reflect traditional attitudes is not well supported.

Background Characteristics

Many of the background characteristics produce findings similar to those obtained for women. Age has a consistently negative relationship to liberal gender role attitudes, except for abortion. Education is associated with more liberal attitudes, providing substantial support for an exposure-based argument. In the same vein, mother's education has a more consistently positive effect on men than it did on women — providing further support for an exposure-based argument, but this time through a socialization mechanism.

Racial differences for men present an intriguing contrast with women. While completely parallel with the women's results on abortion, premarital sex, and family responsibilities (including the declining salience of race from period 1 to period 2), the results for gender roles in the public sphere are quite different. For women, we found more *conservative* attitudes among whites, but among men, we find significantly more *liberal* attitudes among whites. This finding is consistent with some past research indicating more traditional values among African American men when it comes to political leadership (e.g., Ransford & Miller 1983), but the reasons for this pattern are not particularly clear. Whether this pattern derives from a Black power emphasis on the need for black men to occupy positions of power (Ransford & Miller 1983), an "investment in gender inequality as providing some compensation for . . . racial inequality" (Kane 2000:426), or some other source remains an open question.

Regional and urban patterns among men are similar to those reported for women. Those in the south are less liberal except on family responsibilities, those in the Midwest are less accepting of abortion, and urban men have more liberal attitudes on abortion and premarital sex.

Catholic men align with Catholic women in their consistent opposition to abortion. Though undifferentiated in the first period, in the second period, Catholic men are more accepting of premarital sex, and less supportive of liberal public gender roles than mainline Protestants. Men belonging to the Baptist and sects denominational grouping are more conservative across all domains, while Jews

are more liberal on abortion, premarital sex in the first period and family responsibilities in the second period. As with women, the none/other category seems to be increasingly separating itself from the Mainline Protestants over time as indicated by negative effects for abortion, premarital sex, and public gender roles in period 2, although these trends have yet to achieve significance. Religious attendance has a negative effect in all eight models, just as it did for women.

Finally, liberal political identification also has a consistently positive relationship with feminist attitudes across all four domains and both time periods. Contrary to the predictions of some past work, political identification, while important, does not overwhelm other determinants of men's gender egalitarian opinions. In some models, the effect of political identification for men is significantly less than the effect for women.

Changes in Predictors

Although the results for men were more stable over time than for women, there still are some significant differences when moving from the first period to the second. Similar to the results for women, most of the changes are of the depolarizing type: only a minority of variables experiencing change are becoming stronger predictors. As with women, the increased strength of political identification as a predictor of men's attitudes toward abortion and family responsibilities may reflect cohort replacement and ideological learning (Brooks & Bolzendahl 2004) as well as larger institutional changes in the political parties (Manza & Brooks 1999). Unlike women, religion is not consistently growing as a site of polarization over feminist issues for men (see also Peek, Lowe & Williams 1991; Sherkat & Ellison 1999), but both attitudes about premarital sex and gender roles in the public sphere are increasingly predicted by the labor force participation of men's spouses.

Discussion

TRENDS AND POLARIZATION

Trends in GSS data demonstrate that the acceptance of feminist attitudes and ideas have steadily grown over the past 25 years. In particular, attitudes regarding sexual behavior, women's participation in the public sphere, and family responsibilities all continue to liberalize — but the rate of change is generally slowing. Moreover, decreasing dispersion indicates that along with liberalization has come increased public agreement about these issues. The exception to this trend is public opinion on abortion. In addition to exhibiting some increased polarization, abortion attitudes remain on a fairly flat trajectory and even show some evidence of a slight conservative shift. Such results raise questions about how closely linked abortion

is to other feminist issues. Abortion's deviance from an otherwise liberalizing trajectory may indicate that it is decoupling from other issues of gender equity.

Opinions about abortion are also experiencing changing predictors, especially for women. Some predictors demonstrate increasing lines of polarization: Religious divisions have become better predictors of abortion attitudes over time and, consonant with past research (Adams 1997; Hout 1999; Smith 1994), abortion has become a more partisan and politicized issue. On the other hand, racial differences on abortion have declined over time, as have differences related to marital status and region.

Despite these differences on the abortion question, the determinants of feminist opinion, as a whole, have had a fairly stable structure over time — especially for men. When changes in the predictors do occur, they are often in a depolarizing direction, meaning that the predictors are becoming less relevant. In fact, the evidence suggests that as a whole, the factors examined in the models are becoming less relevant. In each pair of models except one (abortion attitudes for women), the overall predictive power (indicated by the model R^2) is *reduced* when moving from period one to period two. Combined, these results seem to suggest that support for gender equality is experiencing continual diffusion across many societal strata and that the gains of feminism are not limited to particular social categories.

DOMAIN SPECIFICITY

As discussed in the measurement section, feminism is a multi-faceted concept and although the four domains we have examined may reflect a common core, they also represent differentiable concerns. As such, the predictors of non-traditional attitudes in these four domains may not be entirely consistent and thus exhibit a condition of domain specificity. In our findings, a number of variables were relevant to all four domains for both men and women — education, age, religious attendance, and political identification being the most consistent. Others were more limited in relevance. For example, a smaller proportion of income earned by men only predicted feminism in the family responsibilities domain. We interpreted this finding to mean that men with higher relative income expected women to take more responsibility for household management. Thus, while relative income is particularly salient in determining home roles, it is considerably less relevant where abortion and premarital sex are concerned.

Domain specificity presents both a challenge and opportunity for understanding nontraditional gender role attitudes. The challenge brought is additional complexity in defining and examining feminism. If predictors of attitudes can be relevant to some domains and not others, this implies that feminist attitudes are multifaceted and that attempts to measure them with a single scale or by using a single domain are inadequate. Combining domains into a single scale may obscure relationships that are relevant to only a subset of the domains. Likewise, excluding critical domains

may result in analysts completely missing substantively important relationships that can help us understand the nature and genesis of feminist attitudes in these domains. On the other hand, domain specificity is also helpful because it allows closer specification of theoretical predictions. For example, understanding how men's and women's interests differ in the domain of family life versus the workplace allows different predictions about which variables will be relevant in those domains and permits a more nuanced understanding about how interests play into feminist attitudes.

DIFFERENCES BETWEEN MEN AND WOMEN

A number of past analysts have suggested that markedly different sets of predictors should be necessary to predict women's and men's feminist attitudes (Klein 1984; Reingold & Foust 1998). Our results, however, are not strongly supportive of that notion. Although there are clearly some important differences between predictors of men's and women's attitudes, we are struck by how often variables produce similar kinds of results and how often over-time trends are parallel across the two groups. Age, education, region, religion, religious attendance, and political identification all produce very similar patterns among men and women. Perhaps the greatest difference by sex comes from the labor force participation variables in which women's participation and the participation of the man's spouse predicts levels of feminism. Some analysts however, have argued that it is not really the individual, but the family that is the appropriate unit of analysis (Plutzer 1991). If viewed in this way, the results for men and women again become parallel. In the traditional family unit then, the critical predictor is simply whether or not the wife works. No matter whether the man or the woman is answering the question, the labor force participation of the wife predicts increased feminism — for both the man and the woman.

It has also been expected that the importance of political identification and socialization for developing feminist attitudes would differ between men and women. Such variables have been expected to be substantially more important in producing men's attitudes because men lack the direct life experiences that might expose them to feminist ideas or produce interest structures consonant with gender equity agendas (Klein 1984; Plutzer 1991). Evidence has been mixed on this point (Gerson 1993; Klein 1984; Plutzer 1991; Reingold & Foust 1998; Rhodebeck 1996; Tamney et al. 1992;), but our analysis provides little support for the notion that these variables are particularly important to men. As discussed above, political identification seems to have a marginally stronger impact on women's attitudes and is not a particularly overwhelming predictor for either sex. Education is an important predictor for both sexes, but again, the effect seems generally stronger for women than for men. The one variable that does provide limited support is the

mother's education variable that has a more consistent (though not always larger) effect for men.

INTERESTS, EXPOSURE, AND MECHANISMS

At the beginning of this article, we highlighted two general approaches to understanding the sources of feminist attitudes — one based on interests and the other on exposure to feminist ideas and gender bias. As pointed out in the results section, both approaches found support in the data examined here. On balance, it is difficult to say whether one of the approaches is more powerful than the other, in part because both perspectives make similar predictions about many variables. Where they make different predictions, sometimes exposure is supported and other times the interest perspective is supported.

This combination of problems means that a thorough competitive test of one against the other cannot be achieved using this kind of data. Nor do we think that such a competitive test is an appropriate approach to understanding the dynamics of feminist attitudes for two reasons. First, given the indications in these results and the literature that has preceded it, it is most likely that *both* interests and exposure contribute to the formation and maintenance of feminist attitudes — not one or the other. In addition to making independent contributions, it also seems quite likely that these two processes interact in a cyclical fashion such that exposure causes a redefinition of interest structures and changes in life circumstances, which may in turn lead to further exposure. Thus, a more fruitful path may be the development of a more dynamic, multifaceted, and interactive approach, rather than continuing to worry about whether background variables, political socialization, exposure or interests are the best predictors of feminism.

Second, the fact that these two main perspectives predict similar relationships indicates that we have not examined the mechanisms underlying each theoretical perspective closely enough. For example, both interest-based and exposure-based notions predict that work experience increases feminist attitudes among women, but the mechanism that produces that relationship differs from one perspective to the other. Given that this relationship is well established at this point, we need consider whether this relationship exists because working women's well-being is served by feminist agendas or because work produces encounters with feminists and feminist ideas, or both.

Notes

1. The change is so ubiquitous that a necessary link between liberal gender role attitudes and feminist self-identification no longer exists (Schnittker, Freese & Powell 2003). Thus, our use of "feminist" reflects a political and social agenda consistent with mainstream feminist goals, and not the self-identification of respondents.
2. Banazak & Plutzer (1993) also argue that workforce participation can cause psychological dissonance, i.e., a woman's entry into the workplace is inconsistent with traditional attitudes about gender roles and resolving this inconsistency requires a shift in attitudes toward feminism.
3. All respondents are included in the analysis regardless of marital status. Respondents living alone are coded as earning all of the family income.
4. Davis & Robinson (1991) expect this effect to be slightly offset because men with working wives will be pressed into additional household management.
5. A similar argument can be made for mother's employment status, but this variable does not seem to have the expected predictive power (Tallichet & Willits 1986).
6. Beyond the theoretical grounds for including this control, Bayesian Information Criterion (see Raftery 1995) fit statistics support inclusion of political identification in every model estimated.
7. Items are recoded so that high scores represent profeminist positions. Nonresponses and "don't know's" are dropped from the analysis of that particular dependent variable.
8. Exact wording of each item, more detailed regression tables, and computer code for variable transformation is available on the web at: <http://www.nd.edu/~djmdata>.
9. Scales were constructed by summing its items. The alphas computed were: abortion, men, .88; women, .87; gender roles, men, .67; women, .72; family responsibilities, men, .77; women, .80. Each scale was converted to an arbitrary metric ranging from 0–10 to aid in comparability.
10. Some prior analyses limit samples to age 25 and above, but preliminary analyses that included 18 to 24 year olds did not significantly change the results and so they are included herein.
11. Trends were tested by *t*-test comparisons across years, a simple regression analysis, or in the case of standard deviations, by $F = s_1^2 / s_2^2$ with N_1, N_2 df. Those discussed as significant produced differences at the $p < .05$ level.
12. The significance of differences in coefficients across periods was tested by

$$z = \frac{b_1 - b_2}{\sqrt{SE_{b_1}^2 + SE_{b_2}^2}}$$

(Cohen & Cohen 1983). We used the same method to test for differences between coefficients in the models for women (Table 1) and men (Table 2), which are discussed below. Chow tests (1960) comparing pairs of models across period or across gender revealed significant differences at $p < .01$ for each pair of models.

13. Throughout the results section, changes in coefficients are discussed in terms of their absolute values: when we say a coefficient is getting smaller, it is getting closer to zero.
14. To maintain consistency with prior analyses and because sample size limits comparisons across groups, race is coded only in two groups, white and all others. See Kane (2000) for detail on the effects of race on gender attitudes.
15. Religious tradition was coded into 5 categories: (1) Catholic, (2) Jewish, (3) mainline Protestants, (4) Baptists and conservative Protestant sects, and (5) none/other. Mainline Protestants provide the comparison category for the dummy variable coding.
16. This apparent conservative shift may be a function of the growth of conservative sects (such as Jehovah's Witnesses and Mormons) that are grouped in the "other" category in the GSS and do not belong to one of the main denominational families.
17. Respondents rated themselves on a scale ranging from extremely conservative to extremely liberal.
18. Although "stay-at-home dads" would produce considerable differences some of the domains, they are unlikely to affect the results because of their low numbers.
19. How much of this effect comes from liberal men being more likely to marry working women and how much from women's employment liberalizing husbands is an open question, but Molm (1978) found evidence that employment status influences attitudes and no evidence for the reverse.

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Volume 83: Number 3 March 2005

Maternal Employment during Northern Vietnam's Era of Market Reform*

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Abstract

This research explores the relationship between family structure and maternal employment in Vietnam's Red River Delta, a region experiencing economic development and market transition. Analyses of work intensity, measured as working hours and multiple jobholding, demonstrate that women, including mothers of infants and pre-schoolers, persistently work at high levels of intensity. Work intensity is especially high among women raising teenage children, due to demands for education and other resources exerted upon parents. The findings suggest a reframing of the 'role compatibility' thesis that has guided research on maternal employment. Women's employment is a foremost response to financial pressures in poor households; it is central to the maternal role and even more salient than care work and supervision in contexts featuring diverse, alternative forms of childcare.

Research exploring the interrelationship in women's lives between the demands of raising children and participating in the workforce has broadened to span several academic disciplines, theoretical bases, and diverse international contexts. Consequently, our understandings of the macro-structural, cultural, and institutional forces that constrain and promote maternal employment have evolved in complexity and diversity over the past three decades. I contribute Vietnamese women's experiences during the transition from socialism to market economy to the theoretical and analytical perspectives that have made meaning of women's working lives in the global South. The stories of Vietnamese women, to this date

** The author would like to thank Charles Hirschman, Barbara Entwisle, and several anonymous reviewers for their helpful comments on previous drafts of this paper. Support for this research was provided through a Population Council dissertation fellowship and a National Institute of Child Health and Human Development Research Service Award (T32-HD07168-24). Direct Correspondence to Kim Korinek, Carolina Population Center, University of North Carolina at Chapel Hill, CB# 8120, 123 West Franklin Street, Chapel Hill, NC, 27516-2524. E-mail: korinek@email.unc.edu.*

absent from research on maternal employment, reveal how a legacy of patriarchal and socialist ideologies, combined with the exacting demands for income-generating labor in households plagued by poverty and insecurity during the market transition, elevate women's economic participation to very high levels. The current paper, set in northern Vietnam's Red River Delta, presents a set of analyses that reveal how family structure and features of local socioeconomic context, each representative of household resource demands, influence the extent and intensity of mothers' employment in the transitional, postsocialist economy.

Experiencing dual transitions from peasantry and socialism toward a more diversified, commercial market economy, the setting of Northern Vietnam is apropos for reconsidering questions about maternal employment that have captivated social scientists for decades. Both transitions alter social and economic relations in ways that emphasize the duality of women's roles as caregivers and generators of income and subsistence, thus bringing the question of role compatibility, and the work-childcare nexus, into sharp focus. Furthermore, in settings such as Vietnam where the costs of education enrollment are increasing in parallel step with the importance accorded to educational attainment for youth's labor force opportunities, mothers may place great emphasis on performing income-generating work that is sufficient to allow their children to advance and compete for status in the education system.

The practically universal participation of North Vietnamese women in the labor force suggests a reframing of theses about 'maternal role compatibility' that guided early generations of research on women's roles in the developing world. Specifically, it should be recognized that in poor countries, especially among working and peasant classes, women's extra-domestic work is a foremost response to economic pressures in their households (Chant 2002; Garcia & de Oliveira 1997). Where economic crisis and transition pose challenges to household economic survival, women's roles as workers and income-earners are not in conflict with, but rather are part and parcel of, their roles as mothers. This is especially true in contexts like Vietnam where socialist revolution and attendant economic transformations have depicted employment as duty and mobilized women's full economic participation through state mandated policy and propaganda campaigns (Pham Van Bich 1999). Engaging in employment is a particularly salient element of the maternal role in post-socialist Vietnam, where demands for women's involvement in income-generating work are exacting and diverse childcare arrangements are available.

Perspectives on Children and Maternal Employment in the Developing World

Exploring the interrelationship between women's fertility and labor force participation, a body of literature emerged in the late 1960s which produced several constructs — such as "role conflict" and "role incompatibility" — that would

become influential heuristics for the study of women's economic activity in countries of the developing world. Historically bound, the empirical and theoretical logic in these foundational analyses of maternal employment reflect their formulation prior to the massive and decisive global economic restructuring that visited informalization, feminization, and marginalization upon the workforce in poor countries of the South, especially since the 1990s (Standing 1999). At this earlier time, women's economic participation was depicted as an outcome that reflected and contributed to economic development, and persistently high levels of fertility were viewed as posing obstacles to economic growth and modernization (Lloyd 1991). Critiques of the modernization framework, of labor force participation measurements that disguise women's work, and of patriarchal social relations that limit women's participation outside the domestic sphere are absent in early analyses of married women's employment (Donahoe 1999; Isvan 1991). Jaffe and Azumi (1960), observing with concern that relatively high levels of fertility characterized Puerto Rican and Japanese women employed in cottage industry during the mid-1950s, suggested that such employment provided a convenient intermeshing of work and domestic duties. Likewise, Stycos and Weller (1967), analyzing rural Turkish women's employment in the 1960s, put forth that the roles of mother and worker were relatively "compatible," in certain contexts, such as when work was performed on a family farm, or in a cottage industry, or when alternative forms of childcare were widely and cheaply available. In such situations, they asserted, mothers with young children could be employed with relative ease and little role conflict.

That the mothers of children, like men and other women, may strive to work, and work with requisite degrees of intensity, in order to meet resource demands and ensure their families' survival, is a complication that does not enter early investigations of the fertility-employment nexus. The analyses revolve around what appear, in retrospect, as oversimplified dichotomies that disguise nuances and complexities in economic activity and economic structures — work performed in either the traditional (rural) or the modern (urban) sector, women being either economically active or inactive, worker roles being either compatible or incompatible with mothering. Spanning countries from Thailand (Goldstein 1972), to Egypt (Bindary, Baxter & Hollingsworth 1973), Puerto Rico (Weller 1968), Guatemala (Gendell, Maraviglia & Kreitner 1970), and elsewhere in Latin America (Miro & Mertens 1968), the empirical bases of knowledge about variations in fertility and women's labor force participation broadened significantly through the 1960s and 1970s. However, the analyses largely echoed and perpetuated the worker-mother incompatibility framework.

Analyzing ethnic, residential, and class differences in the work and child-care arrangements of women in Peninsular Malaysia in the 1970s, Mason and Palan (1981) were among the first to critique empirical and conceptual shortcomings of the role incompatibility hypothesis. The crux of their critique lies in the marked variability in institutional forms of employment and child care that characterize

the opportunity structure of Malaysian households, and in turn influenced women's combinations of employment and child care. Mason and Palan's framework for characterizing the different work-childcare patterns of Malay, Chinese, and Indian women voiced a definitive statement on the importance of household socioeconomic context and the resource demands faced by households following a birth as forces influencing women's economic activity. Significantly, Mason and Palan's conceptualization of childcare arrangements as flexible and endogenous in relationship to household opportunity structure suggested that in certain cultural and economic contexts employment takes precedence over childcare in dictating women's joint performance of roles.

Isvan (1991), like DaVanzo and Lee (1983), maintains that the role compatibility concept often devolves into tautology when it is not examined as an empirical question, but rather is equated with women's propensity to carry on reproductive and productive work simultaneously. Isvan's analyses of Turkish women's employment suggest that relative domestic power and autonomy within the household condition the relationship between women's fertility and employment. Thus, women living in poor households of poor countries are often powerless to resolve employment and maternal conflicts — their employment, childbearing, and child rearing are each necessitated by societal norms and family expectations (Aguilar 1996; Isvan 1991). As such, the so-called "conflict" among roles does not vanish as a result of convenience or compatibility. Rather, it is "resolved" when mothers make sacrifices and undertake multiple burdens of labor that frequently reduce the time they have for rest and leisure (Chant 2002; Isvan 1991). Analyses by scholars such as Desai and Jain (1994), Tiefenthaler (1997), and Folbre (1984) demonstrate that mothers give up leisure time, more so than time devoted to economic production, following the birth of a child in order to continue contributing to household income. Women giving up leisure and rest in response to heightened pressures upon their time and monetary resources does not correspond with the notion of simple, fluid movement between "compatible" roles. A more apt depiction is that of mothers rearranging their activities and time commitments in order to contribute needed monetary and subsistence resources to a struggling household.

Scholars of gender and development, particularly those working in Latin America, have shown how advancing globalization, transformations of socialist economic structures, and widespread adoption of neoliberal policies across poor nations have occasioned shifts in the macro-structural and institutional contexts within which mothers make decisions about raising children and securing their livelihoods. The forces of globalization, such as multinational corporations locating production in periphery countries and nongovernmental bodies enforcing policies of structural adjustment upon debtor nations, have brought forth a feminization of the workforce in poor countries (Anker 1998; Standing 1999). As such, households across numerous developing countries have witnessed a dramatic decline in dependence upon men's income, and a concomitant expansion of

women's participation in income-generating work (Chant 2002). In the process, male breadwinner ideologies become outmoded and women, prized for providing relatively cheap and flexible labor, often become the primary or sole generators of income within their households (Cagatay & Ozler 1995; Safa 1995). A principal lesson gained is that during the past several decades of economic restructuring, transition, and crisis, economic necessity has been a driving force motivating the increase in women's workforce participation (Chant 2002).

Macro-level economic changes across the global South have compelled a reframing of maternal employment — not as being simply compatible with childcare and supplementary to father's work, but as being obligatory for ensuring children's well-being and essential for household survival. In a comparative study of women's employment in Puerto Rico, the Dominican Republic, and Cuba, Safa (1995) observes that women, including married women with children, tend to assume increasing levels of economic responsibility in their households, even becoming principal economic providers, as the countries experience rapid economic transformation. Women's greater economic participation results when men are displaced from the work force and their wage and work conditions deteriorate, as well as when households enter precarious states during economic crises, and under regimes of structural adjustment, export-oriented production, and fiscal austerity (Beneria 2001). With informal sector work constituting 57% to 75% of nonfarm employment in Latin America, Asia, and the Sub-Sahara during the 1990s, a sizable and growing share of households are deriving a livelihood from precarious forms of income-generation that often feature very low wages, difficult working conditions, and lengthy working hours (Balakrishnan 2002; Charmes 2000).

Social structure and the demand for household resources have also shaped women's employment patterns in newly industrialized countries of East Asia. Yu (2001) reasons that the employment of married women in Taiwan is greater than in Japan and other newly industrialized countries because Taiwanese women experience a greater need to shoulder financial responsibility in households where men's earnings are often insufficient for meeting consumption needs. Given the demands placed upon them to contribute economic resources for household consumption, Taiwanese mothers often negotiate flexible work schedules, bring work home, and draw upon a wide range of child-care providers in order that their income-generating duties can be met while still fulfilling their maternal, social reproduction duties. As in the poorer, less developed countries of Latin America and the Caribbean, South and Southeast Asia, the urgent need for financial resources and the necessity for mothers to become supplementary, if not primary, providers of income, suggests that employment is adapted to, and becomes a defining element of, motherhood (Garcia & de Oliveira 1997; Yu 2001). Again, making employment flexible and informal creates situations in which mothers can accommodate many hours of employment around their child-care and domestic obligations.

Acknowledging that women across distinct national origin, class, ethnic, and religious strata hold diverse ideologies of motherhood and face distinct cultural and economic forces that constrain their choices, scholars discern that for many women in the working and peasant classes of poor countries, role conflict, *per se*, is little experienced. Tiano (2001) notes that women often come to see employment as an integral element of their mother and wife role. Conflict is less apparent because the work of being a mother and a worker are not perceived as distinct and separate in terms of time, space, or modes of understanding. Extra-domestic work, because it is performed in order to guarantee children's well being, is rarely discussed as being independent of motherhood (Garcia & de Oliveira 1997). In the words of one impoverished Filipino woman, a mother's most important function is to "*give enough to eat, even though life is hard.*" (Aguilar 1996:144). This statement captures the synchronous essence of caring for children and performing income-generating work embodied in the mother role. Economic necessity conditions women's range of opportunities and challenges traditional values and normative expectations so that activities that generate income come to be conceived of as extensions of the maternal role (Pitkin & Bedoya 1997). It is only through women's adaptive responses, their fluid movement between and combination of roles, that household survival is ensured through external economic changes wrought by crisis, globalization, and large-scale economic transition. Perhaps a woman is more a mother, and a better mother, the longer and more intensely she works to provide the food, shelter, education and other necessities, increasingly purchased on the market, that are required by her developing children.

Vietnam, the Transition from Socialism, and Implications for Women's Work and Childcare

Three decades of mobilization for war, a socialist revolution that emphasized gender egalitarian work-force participation, and an undercurrent of Confucian-based ideology that vigorously demands women's loyalty to family constitute the sociohistorical context surrounding the very high levels of women's labor force participation that characterize contemporary Vietnam (Le 1995). Participating in work outside the home has long been conceived as an appropriate role, if not a duty, for Vietnamese women, especially since the Vietnamese Communist Party issued policies and state-mandated rights, inspired by Leninist doctrine, to support women's economic mobilization and their integration in public social roles (Luong 2003; Ungar 2000). While women made substantial gains during the war years in occupational positions previously dominated by men, this was often achieved by levying double and triple burdens of household, private production, and state sector work upon mothers who were pressured to meet "socialist woman" ideals (Bich 1999; Jacka 1997; Summerfield 1997). Several scholars suggest that, rather than being emancipated, these women were simply exhausted, especially the mothers

of young children drawn into productive labor to support production goals at the same time that state socialist institutions failed to lighten child-care and social reproduction responsibilities (Fodor 2002; Hopkins 1999; Schrand 1999; White 1989).

Mothers' approaches to extra-domestic work should be rendered in light of the dutiful and self-sacrificial ideals upheld for Vietnamese women, especially in the context of hardships suffered and courage exemplified through decades of war against French and American forces. The "three responsibilities movement," issued in 1965 by the Vietnam Women's Union, is exemplary of the multiple demands placed upon women by institutions of the state. The movement, which mirrored classical Confucian female virtues, encouraged women's responsibility for production and work, for the family, and for national defense (Gammeltoft 2001; Ungar 2000). Although mobilization for war and production, and state-initiated policies and propaganda campaigns contributed to a short-lived de-gendering of public occupational roles during the war years, commitment to women's full economic participation waned in step with waning wartime and production demands (Luong 2003; Ungar 2000). Campaigns such as the "new culture family" movement, initiated in the mid-1970s after men had returned from the front in large numbers, denoted the government's renewed emphasis on women's performance of motherhood responsibilities (Gammeltoft 2001; Quinn Judge 1983). Following the market reforms of the mid-1980s, state control over production lessened, yet roles for women continue to be designated in government policy and propaganda imagery. For example, campaigns urging couples to build "happy" families (*gia dinh hanh phuc*) through adherence to family planning policies place pressure upon mothers, in particular, to raise a small number of cultured, educated children who might contribute to the country's wealth and development. Implicit in this model family imagery are two parents dedicated to their employment roles and their parenting roles. However, gender disparities in childcare and domestic duties have not dissipated as a result of state socialist rhetoric and policy (Fodor 2002). In fact, scholars such as Luong (2003) maintain that gender disparities in the household division of labor have increased in post-socialist Vietnam as a result of resurgent male-centered kin and family relations, thereby contributing to a situation in which women, more so than their husbands, must meet the double burden of production and social reproduction on their own. For women, the resulting configuration of activities often encompasses several occupations and very long work hours.

The expectation that Vietnamese women be fully engaged in the labor force has persisted into peacetime and the market transition. As in Eastern Europe, economic transformation toward capitalist forms has wrought hardship upon many households, making women's financial contributions increasingly important for the survival and mobility of household members (Ghodsee 2003). Likewise, in reform era China, women's workforce involvement shifted from being viewed as elemental to emancipation and full citizenship under the socialist model, to being

necessary for meeting household financial needs (Harrell 2000). Parallel shifts in Vietnamese society have been accompanied by women's disproportionate retrenchment from state jobs and their relegation to family agriculture and household-based manufacturing and sales activities (Rama 2001). In other words, women have become the core workers in expanding informal sector, family-based agriculture and entrepreneurship activities that demand long hours, offer marginal profits, and lack social welfare benefits and protections. Simultaneous to joining the world economy, Vietnam, like other countries in the global South that have seen the forces of globalization weaken social safety nets and visit feminization and informalization upon production activities, has placed its families, and hence its mothers, in more vulnerable positions.

In Vietnam, as in China, high rates of maternal employment have been maintained through the provision of childcare services by a wide range of female kin (Short et al. 2002). Surrogate care is not limited to live-in grandmothers, but is also provided by grandparents living in close proximity to their adult children (Chen, Short & Entwisle 2000). Observations from field research demonstrate that, in addition to grandparents, a wide range of kin and fictive kin provide child care. This kin includes elder daughters, aunts, and even "adoptive grandmother" figures whose own labor force participation has waned, leaving time to assist with working mothers' social reproduction tasks. During the author's field research a young mother of two children conveyed that even when her husband has temporarily departed their village to find work, she has no choice but to complete her work duties. To do so she secures childcare through various means.

When he is away then I have to make arrangements to complete my work some way, there is no limit . . . if I plan to do something today then I have to wake early and make preparations for the children to go to kindergarten, if I must work very early then I send the children to their grandparents . . . or I have them follow along with me [while I work].

Previous investigations of maternal employment during China's market transition reveal that under circumstances parallel to those experienced in northern Vietnam, that is, where pressures to work are often high and structural constraints severe, "women largely organize domestic responsibilities, including childcare, around their work responsibilities" (Short et al. 2002:34). Especially with looming opportunities for social mobility in the market reform era, women are likely to feel that it is their duty to work for the good of their children (Gu, Zhenming & Hardee 1998; Short et al. 2002). In market transition settings where some form of child care is often available, while opportunities for securing stable, sufficiently remunerative employment tend to be scarce, working for the "good of one's children" is likely to be defined as working intensively to generate income.

This constellation of factors creates a situation in which mothers are likely to engage in very long hours of income-generating work in order to secure the economic well-being of family members and to enhance their usually slim chances

for socioeconomic mobility. Women's workforce participation, then, is likely to be largely impervious to the presence of children. In fact, work intensity may increase in the presence of children, mirroring the intensity of family resource demands. The low, unstable pay associated with family agriculture and informal household business is also likely to lead parents, and mothers in particular, to engage in occupational multiplicity, or a piecing together of several activities like rice farming, raising livestock, and processing handicrafts in one's "free time." A typical description of Vietnamese mother-workers' duties in the market reform period captures the all-encompassing nature of their work:

They manage [the household economy], look after children and do all of the housework. Moreover, as the family in Vietnam is becoming more of an economic unit these days, women also become an important, and even main, source of income for the family. (Vijverberg 1998:87)

Austerity measures implemented under Vietnam's and China's market reforms, such as the removal of subsidies for childcare provided to working mothers and implementation of user fees for education and healthcare, place an increasingly costly burden upon parents to ensure children's wellbeing (Summerfield 1997). During the 1990s, nurseries and kindergartens formerly operated by state funds virtually disappeared in some poor rural communes of northern Vietnam (Nguyen Van Chinh 2001). Where state-subsidized nurseries and kindergartens have remained open, available positions have declined markedly while out-of-pocket fees have increased (Goodkind 1995). For primary and secondary school students, operations fees, supplies, and other required, out-of-pocket costs have risen sharply since the market reforms. At the same time, disparities in access to education resources have deepened with the expansion of "voluntary" costs paid by families who are able to afford extra classes, tutorial sessions, examination reviews, and private schooling (Glewwe & Patrinos 1999). The widening gulf in access to education resources and rising costs of secondary schooling emerge at a time when education credentials are increasingly viewed as essential for social mobility and for escaping the poverty associated with agricultural work, petty trading and manual labor. In this climate, women with children have strong incentive to continue participating in the labor force and to heighten the intensity of their involvement when they face mounting resources related to raising and educating children. This is especially so given that safeguards in place under socialism have widely eroded and Vietnamese women, disproportionately retrenched in massive closures of state enterprises, have exited work positions that were most likely to offer a decent wage and benefits like maternity leave and subsidized childcare (Goodkind 1995; Ungar 2000).

Circumstances during Vietnam's market transition are such that working class and peasant women are likely to remain involved in income- and subsistence-generating work across the course of their lives, displaying peaks in their work intensity at times when resource demands met by their families are particularly

high. An extra hour of labor that generates economic rewards for the household is often essential for survival. Economic hardship, coupled with a relative scarcity of opportunities for work and enterprise, place a premium on every hour of productive employment. Motherhood not only heightens a woman's responsibilities for performing social reproduction duties, it also requires that she enhance her involvement in income-generating work so as to provide her children with sustenance, clothing, and an education. Given the costs of schooling, and the perceived desirability of sending children to school, mothers' work intensity is likely to be particularly great when she has one or more young children, and when those children are at the age of primary and secondary school enrollment.

Data, Measures, and Analytical Approach

An informed analysis of maternal employment must recognize the myriad difficulties encountered in deriving meaningful measures of women's workforce participation. This is true especially where women's economic activity has traditionally been undercounted in formal definitions, where subsistence production and unpaid work in family farms and businesses are common, and where the boundaries of production and reproduction activity are blurred due to their overlap in time and space (Beneria 1982; Coleman 1999; Rosenfeld 2000). I use detailed quantitative measures of working hours and multiple job holding in order to enumerate women's economic activity in a manner that addresses common criticisms of traditional, unidimensional labor force participation measures (Cain 1991; Donahoe 1999). Recent scholarly analyses have replaced dichotomous measures with measures that discern variations in work intensity and duration, that is, measures that are arguably better for capturing nuances in work patterns and portraying workers' welfare and well-being (Floro 1995). Measures of work must be designed to capture not only discrete movements in and out of the workforce, but also the adjustments within work that mothers are inclined to make as a consequence of childbearing and childcare (Entwisle & Chen 2000). Especially in societies where almost all adult women are active labor force participants, and where informal sector work prevails, addressing the responsiveness of work activity to maternal duties and resource demands requires measures that capture hourly variations in activity.

In order to assess how family composition and the presence of children relate to women's work intensity, I use data from the 1995 Vietnam Longitudinal Survey (VLS), a representative survey of individuals and households in Ha Nam Ninh,¹ a core province of the Red River Delta approximately 90 kilometers from Vietnam's capital, Hanoi. Ha Nam Ninh is a densely settled, heavily agrarian province whose principal crop is irrigated rice. Farming households in the region also commonly raise kitchen gardens and livestock for home consumption and to sell on the market. Many households have formed small, nonfarm businesses, contributing

to a gradual diversification in the countryside's emergent market economy. Small market stalls, tailor shops, restaurants, and repair shops, usually employing several family members, are among the new businesses scattered about the province's towns and villages since the mid-1980s *doi moi* market reforms. State employee retrenchment peaked in the late-1980s; however, a number of state-run enterprises continue to operate in the province and state-run utilities and administrative offices provide many of the formal sector jobs available to the local population. Proximity to Hanoi and Vietnam's principle roadway — the Hanoi-to-Ho Chi Minh City Highway One — allows relatively rapid diffusion of economic development and modern conveniences in the province (for example, travel-related businesses, regional bus service), and facilitates new streams of rural-urban labor migration (Dang 2001).

The VLS uses a stratified random sampling design in which all communes in Ha Nam Ninh province were stratified according to their distance from the region's major highways, thereby allowing an assessment of how workforce participation and other social phenomena vary across remote, semi-urban and urban places. Four strata (urban, proximate rural, intermediate rural, and remote rural) were constructed to categorize all 471 urban districts and rural communes in the province. From these strata, 10 commune/districts were randomly selected, and within strata random selection of households yielded a sampling frame of 1,855 households and 5,255 eligible adult members of these households. VLS interviewers successfully contacted and interviewed 4,464 15 to 65 year-olds, or 85% of all eligible respondents. The analytical sample consists of ever-married women ($N = 1,819$) from the 1995 VLS sample, with the main analyses supplemented with data from the 1996, 1997 and 1998 follow-up surveys.

The first indicator of women's intensity of workforce participation is estimated from VLS questions about hours devoted to primary and secondary activities in the week prior to the interview. Women estimated average hours devoted to 'working' in their primary activity (not including housework or childcare). For those who worked in a secondary job, hours in the two activities were summed to produce a total working hours measure. This approach encompasses work such as family agriculture and entrepreneurship, trading in the market, wage work in the state and private sector, and informal hired labor. By counting work in secondary, or "sideline" activities, I capture many hours of employment that would be overlooked in analyses focused only on primary economic activities. The measures derived from the VLS reflect a conceptualization of work as the entirety of "effort resulting in some product or service for exchange or domestic consumption" (Rosenfeld 2000:65). While the VLS measures do not fully capture unpaid childcare, social reproduction tasks, and other "marginal economic production activities" that preserve household expenditures (Anker, Khan & Gupta 1988), the measures are well suited to the Red River Delta context, wherein informal sector, family- and self-employment prevail.

The second indicator of work intensity is multiple jobholding, or occupational multiplicity. Analyses of rural labor have shown that “occupational multiplicity” and long hours of work in off-farm production indicate “the survival strategies adopted by poor households faced with insufficient work in agriculture” (Manning 1988:66). I delimit the definition of multiple jobholding to include only persons working in two jobs (or more) in different occupational categories.² This approach counts as multiple jobholders those women whose two jobs span industries. It does not enumerate women who perform two agricultural activities, such as rice cultivation and animal husbandry, as multiple jobholders.

Several family structure variables appear in the analyses to indicate household resource demands, which are thought to influence the intensity of maternal employment. A key analytical objective is to demonstrate how the presence of children in different age groups influences mothers’ employment patterns. Given the distinct and changing levels of resources demanded by children, both in terms of time and monetary resources, I define five dummy variables to indicate whether surveyed women have a child(ren) within each of the following age categories: age 2 and under, age 3 to 5, age 6 to 8, age 9 to 11, and age 12 to 15. By designating whether a woman has a child in each age group it is possible to assess whether children of certain ages are more or less “costly” and influential to their mother’s level of work intensity.

A second feature of family composition relevant to maternal employment is the presence of family members who might provide child care, thereby freeing mothers to participate more intensively in workforce activities. During in-depth interviews women commented that female kin, usually the maternal or paternal grandmothers of their children, and sometimes elder daughters and sisters, were called upon to provide childcare when formal care in nurseries or kindergartens was unavailable or cost prohibitive. I define *maternal surrogates* as women over age 15, besides the mother, who are present in the household. This operationalization restricts the definition of *maternal surrogates* to those women living in the same household as the mother. Analyses of the Chinese context have shown that grandparents need not live within the household to provide child-care assistance. It is only necessary that they live nearby in order to assist their daughters and daughters-in-law (Chen, Short & Entwisle 2000). Though child care can be sought from kin and community members living elsewhere, I believe that their presence in the household is especially likely to permit mothers to engage in intense levels of income-generating work.

Spouse’s employment also influences access to resources and organization of the family economy. Therefore, I incorporate a dummy variable indicating whether the respondent’s spouse works in the formal or informal sector. Husbands employed in formal sector jobs, especially in professional or skilled-trade jobs, are in a favorable position to secure a degree of financial well-being and security for their families. Vietnamese households headed by professionals and skilled workers have the lowest rates of poverty, while those headed by farmers and manual workers

have the highest levels of poverty (Dollar & Litvack 1998). Assuming their relative wealth and financial security, I expect that women with husbands employed in the formal sector will work with a lesser degree of intensity compared to women whose husbands are self-employed or employed in the household sector. Analyses of family economy in developing, pre-industrial societies demonstrate that where household resource demands are severe all capable household members tend to work very long hours (Mason, Vinovskis & Hareven 1978; Tilly & Scott 1978). Thus, women whose husbands work long hours (that is, 60 hours per week or longer) are likely to experience demands for household resources and time-consuming, labor-intensive work that drive them to work with similarly high degrees of intensity.

Community context and employment structure positions are also incorporated in the model as covariates that influence women's work intensity. The mix of occupational opportunities in a community, and the extent to which the occupational structure provides diverse and adequate jobs, is an important constraint upon women's workforce participation. Places with mixed economies that feature both agriculture and more modern, market-oriented sectors may accommodate or encourage lengthier working hours, especially through multiple jobholding. Two variables — location on the rural-urban continuum and occupational sector — are used to indicate the employment context. Rural-urban location is measured with dummy variables indicating whether a woman lives in an urban district; a village less than three kilometers from a regional highway; a village three to ten kilometers from a regional highway; or, a village greater than ten kilometers from a regional highway. Employment sector is measured by dummy variables indicating whether the primary job is in family agriculture, family nonagriculture, or wage employment within a state or private organization. Finally, additional covariates indicating women's age and educational attainment are included in the model.

Results

Vietnamese women interviewed in the VLS are embedded in diverse family and community contexts; they fulfill a variety of occupations and represent a wide range of social class backgrounds (See Table 1). Work intensity is high among most women. On average, women labor in economic activity for 45 hours per week. One-fourth to one-third of married women currently have a child, or children, in each of the five designated age groups. Married women in the VLS survey have, on average, 1.7 children under age 16. This rate is consistent with Vietnam's current total fertility rate of 2.4. About 35% of women in the sample report that there is an additional woman older than 15 present in the household. The high intensity of work participation by women raising several children demonstrates that motherhood

TABLE 1: Descriptive Statistics, Ever-Married Women in VLS Sample, Vietnam's Red River Delta, 1995

	Mean Value/ Proportions	Min. Value	Max. Value	N
Variable description				
Working hours (number of hours)	.45	0	119	1,819
Multiple jobholding	.13	0	1	1,819
Presence of children				
Mean number of children age 0 to 2	.21	0	2	1,819
Mean number of children age 3 to 5	.36	0	3	1,819
Mean number of children age 6 to 8	.33	0	3	1,819
Mean number of children age 9 to 11	.38	0	2	1,819
Mean number of children age 12 to 15	.48	0	3	1,819
Mean number of children age 0 to 5	.58	0	6	1,819
Mean number of children age 6 to 15	1.19	0	6	1,819
Maternal surrogate (females age 15+) present in household				
maternal surrogate not present	.65	0	0	1,819
Spouse employment				
Formal sector				
(professional, managerial, clerical, utilities or manufacturing)	.19	0	1	1,819
Spouse not working, or works in X				
(professional, managerial, clerical, utilities or manufacturing)	.81	0	1	1,819
Spouse working greater than 60 hours per week last week	.23	0	1	1,819
Spouse working less than 60 hours last week	.77	0	1	1,819
Respondent community context				
Urban	.19	0	1	1,819
Proximate rural	.18	0	1	1,819
(Less than 3 km from highway)				
Intermediate rural	.20	0	1	1,819
(3-10 km from highway)				
Remote rural (greater than 10 km from highway)	.43	0	1	1,819
Respondent employment type (primary job)				
Family agriculture	.59	0	1	1,819
Family, nonagriculture	.18	0	1	1,819
Employee in private or government sector	.12	0	1	1,819
Respondent age in years	37.6	17	65	1,819
Respondent education				
No formal education, or primary school only	.22	0	1	1,819
Lower secondary	.59	0	1	1,819
Upper secondary school or higher	.19	0	1	1,819

Source: Vietnam Longitudinal Survey, 1995

does not preclude, and may in fact contribute to, intensive workforce among Vietnamese women.

Table 1 also reveals that the modal work activity among Red River Delta women is family agriculture and the modal educational attainment is lower secondary schooling. Greater than 50% of women in the VLS reside in remote, rural settings, and less than 20% of the sample resides in urban or more proximate rural locations. Most women have spouses working in agricultural jobs with average working hours totaling less than 60 hours per week.

Despite the near universality of workforce participation among women living in the Red River Delta, there is significant diversity in the intensity of their work. This diversity in work intensity is apparent in the distribution of average weekly working hours among ever-married women in the sample. There is a wide dispersion of reported average working hours among women in the analytical sample, ranging from less than five to more than 80 hours per week. In estimating their weekly working hours, women appear to round to the nearest ten or estimate a daily figure and multiply this value by seven. This is evidenced by marked heaping of average hours values on multiples of seven and ten (for example, nearly 10% of the analytical sample reports working 56 hours per week, and an slightly larger share reports working 70 hours per week). Among women in the analytical sample who report working any hours, the mean number is 53 hours per week, and the median is 52 hours per week.³

Quantitative measures reflecting lengthy duration of work are consistent with comments voiced in qualitative interviews conducted by the author during a follow-up study in select VLS communes in 2001. In the interviews women commonly expressed that severe poverty and underemployment led them to work very long hours and make efforts to combine work in several occupational fields. Many women described in straightforward terms the reason for their high levels of economic participation — a lack of adequate, remunerative work in their community. One woman articulated their experience as follows:

We have to try our best to work because of the poor economic situation. We are short of money but we must spend a lot. The price for paddy rice isn't worth mentioning [since it is so low] so we are forced to work additional jobs to have enough money for the family's expenditures.

The common expression by women that they perceive no choice or feel forced to work in multiple jobs, and/or for long hours, suggests that high work intensity is a means of coping with poverty and insecurity in a setting that offers few alternatives to labor-intensive, barely remunerative, production activities (Floro 1995). Making reference to challenges in meeting family expenditures, many mothers expressed that they felt compelled to work for lengthy periods of time because their life circumstances demanded it. As such, many women described a workday that extended through the entire day, with little time for rest or leisure.

TABLE 2: Bivariate Statistics, Ever-Married Women in VLS Sample, Vietnam's Red Delta, 1995

	Percent Multiple Jobholders	Mean Working Hours, Primary Jobholders Only	Mean Working Hours, Multiple Jobholders	N
Total, all ever-married women	13.4	41.7	66.3	1,819
Presence of children				
No children age 0 to 2	13.9	41.4	65.3	1,434
1+ children age 0 to 2	11.2	42.7	70.7	385
No children age 3 to 5	12.4	40.2	65.7	1,222
1+ children age 3 to 5	15.2	44.9	67.2	597
No children age 6 to 8	11.7	39.9	65.7	1,290
1+ children age 6 to 8	17.4	46.5	67.2	529
No children age 9 to 11	12.2	39.8	66.4	1,230
1+ children age 9 to 11	15.8	45.8	66.1	589
No children age 12 to 15	11.9	40.0	65.7	1,172
1+ children age 12 to 15	16.1	44.9	67.0	647
Maternal surrogate (females (age 16+) present in household	14.2	41.7	66.3	1,191
Maternal surrogate not present	11.8	50.3	—	628
Spouse employment				
Formal sector (professional, managerial, clerical, utilities or manufacturing)	14.6	38.3	67.4	342
Spouse not working, or works in agricultural/informal sector	13.1	42.5	66.0	1,477

The words of a 26 year-old mother, also a teacher in a local school, are representative:

I do washing and go to give the pigs food, I grow vegetables, there are several hours that the children are still at kindergarten, but I am still not able to take a rest. I have to continue to work . . . in the afternoon I go to the school to work, when I return home I am still not able to rest.

Mothers commonly spoke of needing to persevere in their work so as to meet the needs of their children. This perseverance leads to workdays that begin early and extend into late evening hours.

Bivariate analyses shown in Table 2 indicate that being a mother to young children is positively associated with working hours and multiple jobholding. For women with children over age three, the proportion holding multiple jobs and the average number of working hours are noticeably higher than among women without children in the respective age group. The transition to a nascent commercial, market

TABLE 2: Bivariate Statistics, Ever-Married Women in VLS Sample, Vietnam's Red Delta, 1995 (Cont'd)

	Percent Multiple Jobholders	Mean Working Hours, Primary Jobholders Only	Mean Working Hours, Multiple Jobholders	N
Spouse working hours				
Spouse working greater than 60 hours per week last week	21.8	54.6	73.4	418
Spouse working less than 60 hours last week	10.8	38.3	62.0	1,401
Respondent community context				
Urban	8.0	39.8	69.5	338
Proximate rural (Less than 3 km from highway)	20.7	42.1	70.3	323
Intermediate rural (3–10 km from highway)	21.5	53.9	65.9	372
Remote rural (greater than 10 km from highway)	8.8	37.4	61.4	786
Respondent employment type (primary job)				
Family agriculture	8.8	48.0	67.9	1,068
Family, nonagriculture	24.4	45.1	61.6	336
Employee in private or Government sector	30.5	49.5	69.3	220
Respondent age in years				
Age 17 to 24	10.0	37.4	68.2	209
Age 25 to 44	16.4	44.7	66.8	1,146
Age 45 to 65	7.3	36.9	62.0	464
Respondent education				
No formal educ, or primary school only	8.3	36.7	66.8	400
Lower secondary	14.8	43.0	66.8	1,081
Upper secondary school or higher	14.8	43.8	64.3	338

Source: 1995 Vietnam Longitudinal Survey

economy from a peasant command economy contributes to a situation in which informal sector employment is pervasive relative to formal sector wage work that offers employee protections and benefits. Informal sector work is characterized by low wages, flexibility, and locations within or near the domestic sphere, thus contributing to a situation in which many women hold multiple jobs. The findings for spousal employment are also consistent with hypotheses about women's workforce participation as a response to household economic conditions. That is,

TABLE 3: Ordinary Least Squares Regression Analysis — The Determinants of Ever-married Women’s Average Weekly Working Hours

	Model 1		Model 2		Model 3	
	Coef	Std. Er.	Coef	Std. Er.	Coef	Std. Er.
Constant	39.11***	2.07	31.46***	2.33	32.5***	2.33
Total number of persons in Household	-.71	.59	-.44	.53	-.32	.53
Children in household						
Any children age 0 to 2	2.94*	1.57	2.74	1.5	1.38	1.59
Any children age 3 to 5	5.37***	1.41	2.85*	1.35	2.17	1.44
Any children age 6 to 8	5.98***	1.45	2.4	1.4	2.26	1.49
Any children age 9 to 11	3.49*	1.49	1.91	1.38	1.29	1.51
Any children age 12 to 15	6.67***	1.50	5.23***	1.38	3.79**	1.54
Presence of a maternal surrogate	1.24	1.17	.72	1.05	.64	1.04
Females age 15 or older in household						
Maternal surrogate	—	—	—	—	—	—
Not present (omitted)						
Spouse employment						
Formal sector						
(professional, managerial, clerical, utilities, or manufacturing)			-6.18***	1.46	-6.23***	1.46
Spouse not working, or works in agricultural/informal sector (omitted)			—	—	—	—
Spouse working hours						
Spouse working greater than 60 hours/week last week			14.37***	1.34	14.40***	2.17
Spouse working less than 60 hours last week (omitted)			—	—	—	—
Respondent community context						
Urban			-1.47	1.88	-9.38***	2.64
Proximate rural (less than 3 km from highway)			4.58**	1.59	4.69**	1.59
Intermediate rural (3–10 km from highway)			13.83***	1.49	13.50***	1.48
Remote rural (more than 10 km from highway)			—	—	—	—

when their husbands’ characteristics suggest the family is in a relatively precarious position women are found working longer hours and more often in multiple jobs.

Multivariate analyses allow us to delineate the relationship between family structure and the intensity of women’s involvement in income-generating work. Table 3 presents results from an OLS regression analysis of married women’s working hours.⁴ The analysis focuses on ever-married women under age 65. Women not working in the previous week (*N* = 165) are coded as zero.

One of the most striking results in Table 3, consistent with the viewpoint that economic demands posed by children compel mothers’ workforce participation, is that the presence of any child is associated with greater weekly working hours. This

TABLE 3: Ordinary Least Squares Regression Analysis — The Determinants of Ever-married Women's Average Weekly Working Hours (Cont'd)

	Model 1		Model 2		Model 3	
	Coef	Std. Er.	Coef	Std. Er.	Coef	Std. Er.
Respondent employment type (primary job)						
Family agriculture (omitted)			—	—	—	—
Family, nonagriculture			8.58***	1.66	7.54***	1.67
Employee in private or government sector			15.85***	2.14	14.30***	2.17
Respondent age in years						
15 to 24			-2.0	92.00	-1.90	2.01
25 to 44			-.55	1.77	.07	1.78
45 to 65 (omitted)			—	—	—	—
Respondent education						
No formal educ, or primary school only			1.87	1.61	-2.43	1.62
Lower secondary (omitted)			—	—	—	—
Upper secondary school or higher			-.55	1.57	-.81	1.57
Respondent is a multiple jobholder			14.21***	1.75	14.77***	1.75
Place-children interactions						
Urban * Kid(s) 0 to 2					12.56***	4.34
Urban * Kid(s) 3 to 5					8.13*	3.53
Urban * Kid(s) 6 to 8					3.49	3.52
Urban * Kid(s) 9 to 11					5.31	3.23
Urban * Kid(s) 13 to 15					8.53**	3.15
Model fitting						
F	10.10		30.77		25.4	
Adjusted R ²	.04		.24		.25	
N	1,819		1,819		1,819	

Notes: (more than 10 km from highway) (omitted)

Source: 1995 Vietnam Longitudinal Survey

* $p \leq .05$ ** $p \leq .01$ *** $p \leq .001$

result is quite robust, as evidenced by the statistically significant, positive result for children in each age group within model 1. The presence of a teenage child, between ages 12 and 15, is associated with an especially sharp increase in work intensity. The presence of a child in this age group contributes nearly seven additional hours to a woman's work week. While the strength of the relationship is weaker than that observed for older children, the results show that even having a child under the age of two has a positive, statistically significant influence on women's working hours. Considered together, these results suggest that women's work intensity represents a response to family resource demands, and that the fluctuation of these demands follows the age composition of children. Given that teenagers demand greater subsistence and monetary resources than younger

children, especially for educational expenditures, and that greater working hours are associated with teenage children, the results indicate mothers' responsiveness to the age-graded resource demands associated with raising children.

The costs of schooling have increased for all students, and especially for secondary and post-secondary students, since the initiation of market reforms (see Glewwe and Patrinos 1999). In in-depth interviews, many women observed that even before they faced university tuition and housing costs they experienced serious pressure to spend money for their primary- and secondary-school children to attend extra classes, private tutorials and college entrance examination reviews. The income contributions that a mother can provide to the household economy through heightened work participation take precedence over using time for social reproduction activities in those contexts where numerous alternative care-providers are available and the costs for schooling and subsistence weigh heavily upon households.

To delineate more clearly the relationship between the presence of children and a mother's level of work intensity, and to substantiate the reasoning that resource demands are causally prior to and evoke changes in women's work intensity and working hours, I present a subanalysis of women's working hours and the presence of children under age 16 across a three-year time period. I examine changes in women's working hours from 1995 to 1998, and whether these changes correlate with shifts in the number of dependent children in the household. The results, presented in Table 4, demonstrate the dynamism of women's work intensity over time. While the difference across groups is not striking, a greater percentage of women who gave birth to babies between 1996 and 1998 have increased their working hours over this time span as compared to women who did not give birth in the two previous years. Furthermore, working hours increased between 1996 and 1998 for those women who have also seen their number of children increase over the time period. The opposite is true — working hours have decreased — for women who have fewer children in 1998 than they did in 1996. While lacking covariates for other family and community factors, and representing only a short duration of time, these results corroborate the position that work intensity is variable across individual women and across a woman's life course, and that variability in work intensity follows from changes in resource demands associated with children.

Table 3 shows that a maternal surrogate figure in the household has a trivial effect on women's working hours. Analyzing a maternal surrogate-presence of children interaction term (not shown) also produced trivial results and failed to improve the model's goodness of fit. Again, there is a robustness of maternal employment across diverse family composition circumstances, with women persisting in work and heightening their work activity irrespective of having another maternal figure in the home who can aid in child-care and social reproduction tasks. The notion that mothers work only in a restricted set of situations where such work is compatible with the care of their children is not supported by these

results. Rather, the results suggest that women are working in nearly every circumstance, more so when they have young children. Although mothers' work intensity may subside slightly when children are very young, it does not diminish entirely.

The persistent, high intensity workforce participation by mothers with infant and toddler children suggests that women in the Red River Delta draw upon flexible childcare alternatives from diverse institutions. That women can rely upon a diverse group of women, young and old, kin and nonkin, to care for their young children while they are at work explains the absence of a household maternal surrogate effect on mothers' working hours. Parallel analyses of maternal employment in China demonstrate that because care derives from many sources — from kin outside the house, and from nurseries and kindergartens in the commune, mothers' allocation of time to childcare is little affected by the presence of adult female kin within their own households (Chen, Short & Entwisle 2000; Short et al. 2002). The diverse and flexible approaches undertaken to care for children demonstrate how women, collectively, maintain very high levels of workforce participation over the life course, including when they have very small children.

The relationships between women's working hours and spouses' workforce participation characteristics also illustrate the inner workings of household economy in the Red River Delta. Specifically, women whose husbands work in formal sector jobs (in professional or skilled occupations) work significantly fewer hours per week than women whose husbands are employed in informal sector jobs, which tend to be located in agriculture and low-skill, manual labor positions. It appears that in families which have achieved a modicum of socioeconomic security and wellbeing through husbands' occupational positions, women devote noticeably fewer hours to economic activity and their time can be focused upon childcare, other social reproduction activities, and perhaps leisure and rest time. That families achieve positions of security and wellbeing through formal sector and relatively high prestige employment, rather than through long working hours, is apparent in the spousal working hours variable. Having a spouse who works very long hours each week does not reduce women's working hours. Rather, women's workforce participation mirrors that of her husband — men working lengthy hours have wives who work similarly lengthy hours. In the Red River Delta we observe a situation common to households living at subsistence's edge in poorly developed regions where labor-intensive, low wage employment prevail; that is, lengthy working hours, often in insecure, informal sector jobs, must be endured by several members of households — the mothers and fathers of young children included — in order to meet household expenditures.

Variations in women's work intensity across the rural-urban continuum suggest that in villages on the periphery of urban centers, where poverty and economic insecurity persist in the midst of opportunities to work in both the informal agricultural and nonagricultural sectors, women's working hours are far longer

TABLE 4: Change in Working Hours and Change in Number of Children Age 0 to 16, 1996-1998

	Change in Number of Children Under Age 16, 1996-1998					Did Not		N
						Had Babies between 1996 and 1998	Have Babies between 1996 and 1998	
	-2	-1	No Change	1	2			
	Percentages							
Change in mean number of hours								
Large increase in hours (50+ additional hours in 1998)	.0	13.6	11.4	14.3	100.0	17.2	11.6	103
Moderate increase in hours (15-49 additional hours in 1998)	20.0	16.1	16.4	17.9	.0	17.2	16.4	143
Little/no change in hours (+/-14 hours in 1998)	20.0	50.8	46.5	57.1	.0	55.2	46.9	411
Moderate decline in hours (15-49 fewer hours in 1998)	20.0	15.3	15.9	3.6	.0	3.4	15.8	134
Large decline in hours (50+ fewer hours in 1998)	40.0	4.2	9.9	7.1	.0	6.9	9.3	80
N	5	118	719	28	1	29	842	871

Source: Vietnam Longitudinal Survey, 1995-98

than those among women living in cities or remote rural settings. In fact, compared to women in remote rural areas, women residing in villages in close proximity to urban towns work approximately 14 additional hours per week. This pattern suggests that the intensity of women's work, while quite high where agricultural production predominates, is even greater in contexts bridging the divide between traditional, agricultural economy and more modern, market-oriented economy. In the market transition period, it is increasingly the case in the countryside that informal sector farm and off-farm opportunities exist and are being created as a means to enhance households' income-generating potential. This creates local opportunity structures that dictate lengthy work days and work weeks, for example situations in which it is normative to supplement agricultural work with in-home piece-rate sewing or the operation of a small market stall outside one's home. Women, correspondingly, respond to these demands by extending their working hours to fill nearly every hour of the day. For certain women whose families face particularly dire circumstances it appears that the only limits to their work intensity are potential outlets for their labor and the number of hours in a day.

In light of the striking differences in work intensity across the rural-urban continuum, I include a set of interaction terms to assess whether the effect of children on work intensity is conditional upon location. Model 3 contains five interaction terms, three of which indicate that children pose a stronger, positive impact upon mothers' work intensity in urban areas relative to rural villages. Compared to their rural counterparts, urban women with infant or toddler children work significantly more hours per week. From this relationship we gather, quite contrary to original depictions of maternal role incompatibility, that urban women faced with the resource demands of raising children are better able to respond to these costs than rural women. In part, this is because their local employment and child-care contexts facilitate extensions of working hours. Urban women have better access to state- and private sector child-care facilities, as well as an abundance of kin who can watch their children while they are at work. In rural areas of Vietnam, by comparison, child-care facilities are fewer in number and the fees that have been imposed since the market reforms are often prohibitive to poor families (Goodkind 1995). This may lead women to tailor their economic activity to be amenable with child care. Additionally, given the general impoverishment of rural households, rural women may have to work with the highest possible levels of intensity consistently across their life courses, not only when children arrive and demand additional resources. Furthermore, the greater responsiveness of urban mothers' work intensity to the presence of children may arise because the monetary costs of raising children are higher in urban settings. Urban parents are more likely to purchase food for their children on the market, to pay for daycare and kindergarten, and to otherwise expend income to invest in children's well-being. Such circumstances, in which urban mothers respond more distinctly to the presence of young children by increasing their working hours even more markedly than rural mothers, do not conform well with traditional conceptualizations of maternal role incompatibility. Due to the high monetary costs associated with raising children in the market transition environment, costs and expectations that are arguably greater in urban settings, an increased intensity of employment is particularly likely to occur among urban women attempting to fulfill demanding maternal roles.

That urban mothers' work intensity is more sharply enhanced by the presence of teenage children than rural mothers' likely reflects the greater expectations and expenses associated with urban children's educational attainment. In urban areas, although they assist with family business activities from time to time, young adults are less likely than their rural counterparts to contribute labor to the family economy, and more likely to place pressure upon their parents to provide for schooling and other expenses. In juxtaposing the orientation of rural and urban women to the workforce, it is important to realize that rural women are likely to labor to the fullest extent possible within their local employment setting, consistently across the life course, and still find it difficult or impossible to provide for their children's highest educational aspirations. In both rural and urban settings

of this market transition society workforce participation is a central duty of motherhood; however, marked inequalities in the structure of work and education opportunities for rural and urban children mean that mothers' work efforts are directed toward different needs and aspirations of children.

MULTIPLE JOBHOLDING

The ordinary least squares (OLS) results demonstrate that multiple jobholding is pivotal to the intensity of women's workforce participation. In general, performing a second economic activity in the previous week contributed about 14 hours to women's work. In order to clarify the structural opportunities associated with women's involvement in multiple job holding, I estimate a logistic regression model predicting whether women held two (or more) jobs in the week preceding the survey. The results in Table 5, presented as odds ratios, suggest that multiple jobholding is more closely linked to community employment structure and features of a woman's primary occupation, than to features of family composition. The presence of children does little to effect the odds of multiple jobholding. Women with children ages 13 to 15 are significantly more likely to be working multiple jobs as compared to women without children in this age group. Teenage children are either enrolled in school or they have completed lower secondary school and joined the workforce. In either case, their presence does not inhibit women's capability to move between jobs, and may in fact improve their ability to continue working, in early morning and into evening hours, by helping with childcare and chores around the home. As discussed in reference to the working hours analyses, children in their teenage years generally demand more costly educational resources than younger children and thus may place greater pressure upon mothers to enhance work intensity, in part through undertaking multiple jobs.

Differences among women in multiple jobholding are closely linked to their residential location and the nature of their primary job. Urban women are least likely to work in multiple jobs — about 80% less likely than women who live in remote rural villages of the countryside. Women located in remote, rural locations are also less likely to hold multiple jobs as compared to women living in villages that are in close proximity to major highways. That the propensity for multiple jobholding is highest in villages that bridge urban and rural, and that are close to transportation routes, suggests that local employment structures exert a powerful influence upon the structure of women's workforce participation and the routes mothers take to meet pressures to generate income for the family.

Women working as employees of the state or private sector are far more likely than family agriculturists and family nonagriculture workers to be multiple jobholders. This suggests an irony about women's status positions and workforce participation in the Red River Delta. Women who have obtained positions as employees in the state sector often occupy high status positions in their communities, working as nurses, office workers, teachers, and in other relatively

prestigious jobs compared to self- and family-employed vendors, farmers, seamstresses, and the like. However, women who have attained such high status positions are not solely teachers, nurses, and professionals; they are, in fact, more likely than female workers in other employment sectors to carry on additional jobs when their first working day is done. The data on working hours corroborates this pattern, as female state (and private) employees work significantly more hours per week compared to women in the family sector. Female state employees do not only work according to regular work schedules approximating the 40-hour week. Rather, pressures to generate income for the household are such that women employees tend to keep one foot in agricultural and other family-based production activities. For women who have attained the most prestigious, remunerative and secure employment positions in their communities, their workday ends with a second or third shift of activity. What they have attained is perhaps best construed as the opportunity to work, intensely, in two jobs, rather than a degree of elevated status or release from agricultural labor or other work tasks. In Vietnam the triple burden of work related to social reproduction, production in the household sector, and employment in the public sector continues to weigh upon many women as they attempt to secure a livelihood for their families during the country's difficult and uncertain transition to market economy.

Conclusion

The current analysis of maternal employment in Vietnam's Red River Delta presents a situation in which women, even those with young children, are rarely deterred from participating in the workforce. In fact, two dimensions of workforce participation — working hours and multiple job holding — suggest that women work in economic production activities at high levels of intensity, an intensity that is positively responsive to the presence of children and the economic demands that children impose within the household economy. This finding elucidates questions about maternal employment in developing, market transition economies and perspectives informed by maternal role compatibility theses. Feminist economists (e.g., Coleman 1999) have observed that a complex of needs, ranging from financial necessity to socially defined goals for well-being, and gendered responsibilities for nonmarket production, impact women's labor supply decisions. It follows that mothers who meet additional financial needs related to children's resource demands pursue longer working hours and hold more jobs relative to women with few or no children. We see this in Vietnam, where a socialist legacy that developed public childcare institutions and produced an ideology supportive of women's labor force participation continues to reinforce economic participation as a central aspect of maternal role fulfillment.

Consistent with studies of postsocialist contexts in China and elsewhere, I find that in their attempts to meet subsistence needs or achieve social mobility, women's

TABLE 5: Binary Logistic Regression Analysis — The Determinants of Ever-married Women’s Multiple Jobholding

	Model 1		Model 2		Model 3	
	Odds Ratio	Std Er.	Odds Ratio	Std Er.	Odds Ratio	Std Er.
Total persons in household (Count)	.97	.05	.93	.07	1.01	.08
Presence of children						
Any children age 0 to 2	.83	.16	.85	.17	.70	.16
Any children age 3 to 5	1.24	.16	1.17	.16	1.06	.17
Any children age 6 to 8	1.30*	.16	1.19	.16	1.05	.17
Any children age 9 to 11	1.08	.13	1.07	.63	1.01	.15
Any children age 12 to 15	1.28*	.13	1.40**	.16	1.29*	.17
Presence of a maternal surrogate			1.07	.15	1.06	.16
Females age 15 or older in household						
Maternal surrogate not present (omitted)			—	—	—	—
Spouse employment						
Formal sector (Professional, managerial, clerical, utilities or manufacturing)			1.11	.21	.73	.15
Spouse not working, or works in agricultural/informal sector (omitted)			—	—	—	—
Spouse working hours						
Spouse working greater than 60 hours/week last week			1.88	.29	2.46***	.43
Spouse working less than 60 hours last week (omitted)			—	—	—	—

workforce participation is primary in their constellation of activities. The present study has attempted to show that resource demands in the face of economic difficulty and obstacles to social mobility compel women to work with great intensity and as economic actors on par with men. While local employment structures serve to either constrain or facilitate working time and multiple jobholding, women are found to work with greater intensity in those situations where they have young children. Urban women especially, while they may be equipped to advance their children’s education in some instances, must work with great intensity when they have children. The joint experience of social transitions from peasant and socialist economy to commercial, market economy place Vietnamese households in the position of having to broaden and intensify their economic activity so as to produce sufficient income for members’ subsistence and to achieve social mobility goals. The vestiges of socialist, subsidized institutions of social reproduction, coupled with filial ties and obligations that encourage care-

TABLE 5: Binary Logistic Regression Analysis — The Determinants of Ever-married Women's Multiple Jobholding (Cont'd)

	Model 1		Model 2		Model 3	
	Odds Ratio	Std. Er.	Odds Ratio	Std. Er.	Odds Ratio	Std. Er.
Respondent community context						
Urban			1.03	.26	.20***	.0
Proximate rural (less than 3 km from highway)			2.76***	.54	1.35	.31
Intermediate rural (3–10 km from highway)			2.73***	.51	3.50***	.7
Remote rural (more than 10 km from highway) (omitted)					—	—
Respondent age in years						
15–24					.78	.24
25–44					.68	.19
45–65 (omitted)					—	—
Respondent education						
No formal education, or primary school only					.85	.2
Lower secondary (omitted)					—	—
Upper secondary school or higher					.66	.1
Respondent employment type (primary job)						
Family agriculture (omitted)					—	—
Family, nonagriculture					9.24***	1.93
Employee in private or government sector					19.70***	.3
Model fitting						
LR χ^2	15.81		86.04		277.66	
df	6		12		18	
Prob < χ^2	.02		.00		.00	
Pseudo R ²	.010		.030		.200	
N	1,625		1,625		1,625	

Source: 1995 Vietnam Longitudinal Survey

* $p \leq .05$ ** $p \leq .01$ *** $p \leq .001$

giving by female kin, create a situation in which many Vietnamese women return to the work force not long after giving birth. Thus, the more a woman is a mother (that is, the more children she has borne and the more financially dependent they are), the greater the demands for resources in the household, and the greater the requirement that she engage in labor and contribute to the livelihood of her family. The finding that women with young children actually work longer hours than those with fewer or no children is not interpreted as evidence of worker-mother role compatibility, per se. Rather, viewed in conjunction with the rising costs of child

care and education, women's high levels of work intensity and its increase in response to peak family resource demands demonstrate that doing the work of mothering involves participating in the workforce for many hours and often in multiple jobs.

The analyses presented in this article provoke reconsideration of early frameworks describing the relationship between fertility and maternal employment. Early typologies, such as that of Stycos and Weller (1967), gave primacy to the maternal care-giving role, rather than women's capability, indeed their necessity, to contribute labor and income to their households. Accordingly, securing care and supervision for children was conceived as the primary dilemma facing mothers, whose continued or renewed participation in the workforce was deemed contingent on securing such care and supervision. Women in the Red River Delta display an intensity of labor supply that suggests working to generate income frequently takes precedence over efforts to secure child care. In Vietnam, as in other postsocialist settings, women arrange child care through a diverse set of familial, community, and governmental institutions, or they rearrange their work schedules to accommodate child care. For mothers whose families face high levels of resource demand, the question of compatibility between employment and child care is less salient than questions concerning how to locate sufficient, remunerative employment to feed the family and provide for its needs. In urban areas, particularly, women's work intensity rises to such an extent in the presence of young and teenage children that we must assume finding care and supervision for those children is a lesser concern than finding opportunities to work for sufficient hours to provide for children's sustenance and schooling. The current research suggests that a suitable typology for addressing the relationship between fertility and maternal employment ought to emphasize the complex set of resource demands faced by women in regions of the world experiencing economic transition and economic crisis, for whom being a good mother to one's children demands intense involvement in income-generating work.

Notes

1. Subsequent to 1995 data collection, Ha Nam Ninh was subdivided into 3 separate provinces (Nam Ha, Nam Dinh, and Ninh Binh, whose aggregate total population was 3.2 million according to the 1999 Vietnam Census. The total population for the Red River Delta region (which includes the capital city of Ha Noi) was 14.8 million, the country as a whole — 76.3 million (General Statistical Office. 2000. Census of Population and Housing, Hanoi).

2. This operationalization does not count as multiple jobholders the many respondents who named agriculture as both a primary and secondary activity. While some of these workers may have been undertaking two truly distinct activities, rather than simply two tasks in the rice cultivation process, the VLS data does not provide sufficient detail to

make the distinction. Total hours is still calculated by summing work hours in primary and secondary activities.

3. These figures are higher than in Table 1 because they only include women working at least one hour in the week prior to the survey.

4. The distribution of average weekly working hours shows a pattern of heaping on values that are multiples of 7 and 10, suggesting that women estimated their hours by multiplying a daily estimate by seven (days per week), or by rounding a weekly average to the nearest 10. Due to the departure from normal distribution in working hours, I tested whether using ordinal logistic regression as an alternative to OLS regression was more appropriate for modeling women's working hours. Comparing OLS and ordinal logistic regression yielded results of similar magnitude and parallel direction for coefficients and *p*-values. For ease in interpretation, I have chosen to present the OLS regression results for interpreting the predictors of women's working hours.

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Getting to Reparations: Japanese Americans and African Americans*

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Abstract

The literature on social movements shows why the Japanese American reparations movement was successful, while the African American reparations movement has had far less success. How the claim is framed is extremely important for a reparations movement. Even though treatment of African Americans in the past violated key contemporary precepts such as the importance of bodily integrity, the ideal of equality, and the sanctity of private property, African American claimants encounter several problems. Victims of direct harms are dead, perpetrators are diffuse, some of the actual harms were legal at the time they were committed, and the causal chain of harm is long and complex. Some estimates of reparations due would also impose unreasonable burdens on government and American citizens.

Reparations As a Social Movement

A nascent social movement for reparations to African Americans began in the U.S. during the last two decades of the twentieth century.¹ The moral case for such reparations seems unassailable. The horrors of slavery, the appalling segregation and violence of the Jim Crow era, and the continued discrimination since the 1964 Civil Rights Act are well known. One might ask why, if the facts are known, cannot African Americans receive reparations? After all, Japanese Americans received reparations for their internment during the Second World War, a much shorter period of oppression with effects that, however tragic and immoral, affected far fewer people and to a much less harmful degree. It is, however, much easier to obtain

** I am most grateful to Anthony Lombardo and Dan Milisavljevic for their research assistance. The Social Sciences Humanities and Research Council of Canada funded my research, and the Canada Research Chairs program provided me the time to write; I am most grateful to both these organizations. Direct correspondence to Rhoda Howard-Hassmann, Alvin Woods Building, Wilfrid Laurier University, 75 University Avenue West, Waterloo, Ontario, Canada N2L 3C5. E-mail: hassmann@wlu.ca.*

reparations when facts are about recent events, and apply to a finite number of living, identifiable individuals, with names, photographs, and individual stories, than to obtain reparations when the facts are about a seemingly infinite number of unknown people, many generations of whom are long dead.

I use social movements theory and research to illuminate the difficulty of successfully framing a claim for reparations to African Americans.² Meyer and Whittier (1994) define a social movement as “a collection of formal organizations, informal networks, and unaffiliated individuals engaged in a more or less coherent struggle for change” (277). The change sought in this instance is some variant of acknowledgement of and apology for past wrongs, and financial compensation for them, in the form of either collective or individual compensation. The question addressed using a social movements approach is, When and how can claims-making be successful?³ My analysis does not represent my personal views about who should receive compensation for what.⁴ It is, rather, an attempt to explain why it is so difficult to translate the obvious moral injustice of oppression of African Americans into a successful reparations claim.

Any social movement for any sort of social change requires the correct framing of the demand for change. This applies just as much to the demand for reparations for an injustice as to any other demand, however moral and self-evident the demand may seem to those making it. McAdam, McCarthy and Zald (1996) define framing as “the conscious strategic efforts by groups of people to fashion shared understandings of the world and of themselves that legitimate and motivate collective action” (6). Framing claims for reparations requires decisions about who is the perpetrator of a wrong, who is the victim, what exactly is the wrong to be compensated, and what are the reparations desired.

Reparations claims are a kind of symbolic politics, to use Alison Brysk’s (1995) term, involving “the maintenance or transformation of a power relationship through the communication of normative and affective representations” (561). Thus, symbolic politics rely heavily on “the subjective influence of ideas, learning and information” (560). Those who engage in symbolic politics often have to offer a new, counter-hegemonic narrative. To make sure this new narrative has some effect, they must also determine the characteristics of their listeners. Symbolic politics must elicit an emotional and moral resonance in the people from whom reparations are being claimed, as well as in the people making the claim. Claimants for reparations must try to find some “symbolic value congruence” (Ferree & Miller 1985:50) with people and institutions who are not themselves African American, or not dominated by African Americans.

Claimants for reparations to African Americans need to build a community of claimants, as well as a community of those receptive to — and capable of responding to — the claim. They must also convincingly demonstrate the causal chain between initial actions and later harms. The shorter the causal chain, and the fewer the actors involved in causing the harm, the easier it is for the link to be established and for those against whom a claim is made to accept responsibility.

The United Nations defines reparations to include a variety of symbolic and material measures, including acknowledgement of past actions, apologies for them, and monetary or other material compensation (Bassiouni 2000:9-11). This is an evolving international norm, but one not yet fully entrenched in international law. Finnemore (1993) defines a norm as “a rulelike prescription which is both clearly perceptible to a community of actors and which makes behavioral claims upon those actors” (566). Human beings think about what norms ought to be established, and propose measures for their establishment.

In the U.S., the norm promoting reparations for past injustices is still extremely weak. Moreover, there is not yet a strong epistemic community supporting reparations, which can influence national public policy. Haas (1992) defines epistemic communities as “networks of knowledge-based experts” (2) or “thought collectives” (3, note 4). Such communities have a “shared set of causal and principled (analytical and normative) beliefs, a consensual knowledge base, and a common policy enterprise (common interests)” (18). Once they exist, epistemic communities diffuse a norm both within the community, and to the wider public. But the idea of reparations to African Americans is still very weakly diffused. The “movement family” seeking reparations is still very small, represented at best by activists in *Transafrica Forum* (linked to the activist Randall Robinson) and the National Coalition of Blacks for Reparations in America (N’COBRA). Moreover, there is still no acknowledged policy venue for African American reparations. There have been some attempts to institute discussion in Congress, but not yet enough to maintain that reparations are a “normal” subject for legislators.

Framing Reparations Claims

It is common for those advocating reparations to African Americans to attempt to show that their claim parallels the Japanese American claim. Indeed, it is easy to argue that in its moral force the African American claim exceeds the Japanese American claim, and is therefore even more worthy of reparations. Successful claims, however, must present convincing arguments about what happened to justify the claim, who perpetrated the harm against whom, when and how the harm was perpetrated, and what is the appropriate remedy.

Certain aspects of the claim about what happened bear more moral resonance than others. If an action for which reparations are claimed was illegal at the time it was committed, the claim has more resonance than if the action became illegal only after the fact, or indeed is still legal at the time the claim is made. If the action caused death or physical harm, the claim for reparation is more likely to be accepted both by the public and by political authorities. Similarly, if the action offends contemporary ideals of equality, the social movement is more likely to be successful. Finally, loss of property seems to impel public sympathy, as private property is a core value of the modern Western world.

Framing of claimant and respondent is also key to success. The claimant must represent a clearly identifiable group. The respondent must also be clearly identifiable. A claim is more likely to be successful if there is a recognizable responsible authority, such as a government, to whom the claim can be addressed.

The causal chain between the harmful action and the claim for reparations is also very important. Both time and number of actors involved characterize the causal chain. The length of time since an alleged wrong was committed helps predict the success of a movement for reparations. If the victims, or at least their immediate heirs, are still alive, reparations are more likely to be considered legitimate than if the potential beneficiaries of reparations are many generations removed from the ancestors who suffered the moral wrong. It is also necessary to show a direct link between those accused of perpetrating a wrong and those living activists who claim to have been wronged. If many actors were involved in the process of wronging the victims, then it is difficult to find a precise respondent to the claim. When the “actors” include structural variables rather than identifiable human beings — such as the decline of employment opportunities in inner-city America — the chain is even more complicated.

The type of reparation that is demanded also affects the likelihood of a successful claim. If the claim is only for acknowledgement of a past wrong, or even for an apology without any material compensation, it is more likely to succeed than if there is also a claim for material or monetary payment. If material compensation is claimed, its reasonableness will affect the outcome. There must be a clear and limited demand. The amount must be one that is payable without causing significant disadvantage to those making the payment. This may not be a morally or philosophically defensible stance, but it is pragmatically sensible.⁵ Thus, the stance taken by philosopher J. Angelo Corlett (2003) would be suicidal, were it to be adopted by the movement for African American reparations. Corlett argues that “the United States could no longer survive as it now does should it finally own up to what it owes in reparations. . . . [But] [w]hatever suffering accrues to the United States . . . might be seen rightly as the moral cost of . . . murdering and otherwise oppressing untold millions of Native and African Americans” (219). There can be no reasonable expectation of success for a social movement that suggests undermining a society’s basic security.

Not only the framing of the claim, but also the organization of the claim, affects the success of a demand for reparations. The claims-making organization needs effective tactics. One tactic often used in human rights social movements is that of shaming or embarrassing a respondent into acquiescing to a claim. The effectiveness of such a technique often depends on whether the social movement can find a condensation point, a concrete event or individual that becomes publicly symbolic of the perpetrated harm. For example, Rosa Parks became a condensation point for the American civil rights movement when she refused to move to the back of the bus. Personal stories of this type move an audience to empathy more

easily than facts or statistics (Rorty 1993:133). The aim of any human rights or reparations movement is to create a new and legitimate story.

A new and legitimate story can result in interest and publicity via the mass media. Such media interest will assist to build up a social base, a constituency that follows the actions of the social movement leader and supports its claims. If this is combined with political pressure, then there might be some hope that political elites would take up the cause. In the U.S., the reparations movement puts pressure on members of the Black Congressional Caucus as an entry point to the political elite.

Lawsuits, or the threats of lawsuits, can also embarrass a government or private entity into negotiating reparations. The more precedents that claimants can find for their legal claims, the stronger their case. In order to acquire allies, however, a clear distinction must be made between guilt and responsibility. The claim for reparations to African Americans is largely an intergenerational claim: governments and institutions are held responsible for the actions of often long-dead predecessors. If the social movement tries to impute guilt to the individual actors who make up these governments and institutions, or to the wider non-African American public, resistance will increase and empathy decline. Thus, the belief that one purpose of reparations is to punish white Americans for their ancestors' actions is not only morally wrong, but a self-defeating tactic.⁶

Below I assess the Japanese American and African American reparations claims along the criteria set out above. This comparison shows the relative simplicity of the Japanese American case, compared to the African American.

Japanese Americans⁷

All persons of Japanese ancestry in the mainland U.S., including women, children, and the elderly as well as able-bodied, military-age men, were interned during WWII. The interment occurred pursuant to Executive Order 9066, issued by President Roosevelt on February 19, 1942.⁸ Eventually more than 120,000 people were interned, of whom about 77,000 were American citizens (Hatamiya 1999:190). The Japanese Americans were moved from their farms, businesses and residences on the west coast. The compensation they received for their loss of property was derisory. In the late 1970s a social movement to gain redress began among Japanese Americans. In 1988 the government of the U.S. acknowledged its wrong-doing in the Civil Liberties Act, and awarded each living individual who had been interned \$20,000.⁹

The action taken against Japanese Americans was legal at the time. Some, but not all, of the individuals interned were still Japanese citizens, hence they were enemy aliens, subject to control during a time of war. The others had been ordered interned by President Roosevelt as an extraordinary wartime measure.¹⁰ While the conditions in which the Japanese Americans lived were harsh, they were not

deliberately tortured or murdered. Nevertheless, opinion about the internship changed over time. In 1982 an official report concluded that "Executive Order 9066 was not justified by military necessity," and recommended reparations.¹¹ This report was a great boost to the reparations movement.

The internment of the entire Japanese-American population violated the equality principle. At the time the social movement for reparations began in the late 1970s, this principle was quite firmly entrenched in American culture, although at the time of the internment, it was not.¹² In the America of the 1940s there was a strict racial hierarchy which was considered quite legitimate.¹³ Nevertheless, by the 1970s the organizers of the redress movement were able to make effective use of the equality principle, using it to build alliances with other groups in the U.S. dedicated to equality, such as the National Association for the Advancement of Colored People, and the American Civil Liberties Union (Hatamiya 1999). The internment also violated the principle of private property, again having more moral resonance in the 1970s than in the 1940s, when it was common to violate the property rights of nonwhite Americans.

The Japanese American claim for reparations was much easier to make than the African American claim. The perpetrators of the wrong against Japanese Americans were clearly identifiable. The American government had made the order to intern, and its agents had carried out the order. The claimants were also easily identifiable. They were all the individuals who had been living in mainland United States in 1942 who were perceived to be of Japanese "racial" origin, regardless of their citizenship status. The harm was also finite: internship began in 1942 and ended in 1946. It took place during a short period, within living memory. The causal chain of harm was easy for Japanese Americans to demonstrate. Only about 30 years had passed between the initial order to intern and the beginning of the reparations movement. When the reparations were finally awarded, many of the victims were still alive, and it was only they, not their descendants, who claimed and received individual financial awards (Laremont 2001:242).

The Japanese American redress movement was also very well organized. After some internal debate and competition among various groups, the lead organization was considered the legitimate representative of the collectivity. The claimants also had access to very influential, high-level governmental insiders. There were four Japanese American members of Congress, Senators Daniel Inouye and Spark Matsunaga, both from Hawaii, and Congressmen Norman Mineta and Bob Matsui, both from California (Hatamiya 1999:194). Matsunaga and Inouye were also WWII veterans. This allowed them to act as insider advocates (Laremont 2001:248). Inouye was also a very visible victim of violation of physical integrity, as he had lost part of his right arm in battle (Hatamiya 1999:195). The visibility of his injury became a condensation point in the struggle for reparations.

The two veterans in the government had been members of the segregated Japanese American 442d Regimental Combat Team, known for its bravery during WWII (Hatamiya 1999). The reparations movement was able to build an alliance

with white veterans who were aware of this unit's bravery, and who acted as witnesses in support of reparations. The existence of these allies helped break down the original hostility to reparations in the Congress and Senate.

The members of the redress movement successfully used shame and embarrassment to achieve their ends. A key lawsuit also acted as a condensation point. In 1983 three Japanese Americans who had been convicted during WWII of defying the internship policy had their convictions vacated, on the grounds that the internship policy had been motivated by racial prejudice rather than military necessity (Brooks 1999:208). The media publicity generated by this case also helped to generate public sympathy for the cause. Together with an effective lobbying campaign, the lawsuits, politics of shame, and media publicity rendered unnecessary further militant tactics.

Finally, the awards to Japanese Americans were an amount the public could find reasonable, \$20,000 per individual. The claimants were not awarded the full market value of their lost property; indeed, the amount was little more than symbolic. In the event, about 80,000 individual claims were paid, at a total cost of about \$1.6 billion. Aside from the financial settlement, Japanese Americans made reasonable demands for symbolic reparations, which were relatively easy to satisfy. An official apology was included in the Civil Liberties Act (Barkan 2000:30–31).

African Americans

Claims for reparations to African Americans are decidedly more complicated than claims for reparations to Japanese Americans. The time period for which reparations are claimed is so long that it must be divided into three distinct phases; namely, slavery, Jim Crow, and the post-WWII period.

SLAVERY¹⁴

It is extremely difficult to frame a claim for reparations for slavery. To contemporary eyes, the moral claim that American slavery constituted a grievous harm to those bought or born into slavery seems irrefutable. Yet the practice of slavery in the U.S. was not illegal until 1863, when President Lincoln freed the slaves. Slavery did constitute what is now considered to be a gross violation of human rights. In some states at some times, owners could legally kill slaves, and in all periods they could legally torture them.¹⁵ Slavery also violated the deepest notions of equality. In legal status, slaves were not even fully considered people. Nor did slaves have the right to own property. Indeed, they did not even own their own capacity to labor.¹⁶

These obvious facts might seem enough to many African Americans and to many sympathizers to justify a claim for reparations. But offsetting this justification is the difficulty of establishing a clear causal chain between the harm done to slaves in the U.S. until 1863, and the desire of their descendants to receive some form of

reparation. Not only are the direct victims of slavery long since dead, but so are their immediate heirs. Even their more distant heirs are difficult to identify. Some individuals brought to the U.S. from Africa, or their descendants, were freed before 1863. Indeed, a few even owned slaves themselves (Burnham 1993; Johnson & Roark 1984). Other black people in the U.S. are voluntary immigrants from the Caribbean or from Africa. It is difficult to identify among all those individuals of presumed African “racial” or genetic background in the U.S. those whose ancestors were actually victimized by slavery in America, although some identification can be made via historic records, shipping lists, parish documents, and even DNA testing.

A related question is how to demonstrate that the descendants of these slaves — even if they can be identified — are suffering now as a result of slavery. In his *The Debt* (2000), the prominent African American leader Randall Robinson constructs a hypothetical case of a black male in the 1990s, still suffering the effects of slavery. Robinson shows how low expectations and a life of crime are in all likelihood a consequence of generations of persecution, from enslaved great-great grandfathers to sharecropper grandfathers to fathers who suffered from discrimination. Robinson’s composite multigenerational biography is not far-fetched. Consider the African American reporter Leon Dash’s (1996) biography of Rosa Lee, an African American woman living in the 1990s in the Washington, D.C. ghetto. Rosa Lee’s life was profoundly affected by the legacy of slavery. Her grandparents were poor sharecroppers in the South, her mother a domestic worker in Washington. Illiteracy and lack of opportunity plagued Rosa Lee until her death from AIDS in the mid-1990s and also profoundly limited her children’s life chances. Nevertheless, despite such stories, there is the countercharge that African Americans are also in part responsible for their own fate, for example, by rejecting education as a “white man’s value.” And there are many middle-class and professional African Americans who have done well in life and presumably do not need extra help, either via affirmative action or via reparations, as the black conservative critic Shelby Steele has argued. In Steele’s view, “the demand for reparations is yet another demand for white responsibility when today’s problem is a failure of black responsibility” (Steele 2001:198).

One might argue that whether descendants of slaves suffer as a result of their ancestors’ enslavement is in any case irrelevant. Japanese American claimants received reparations for harms they endured in the past, regardless of whether they still suffered (in a material sense) the effects of those harms. In the public mind, however, it is clear that these living individuals did suffer in the recent past, in both a material and a nonmaterial way. This is very different from a case in which very distant ancestors suffered, and in which the causes of the problems of descendants are many and complex, and may include their own actions. The causal chain in the latter instance is far from simple.

Although it is difficult to identify legitimate present-day claimants for reparations for slavery, it is somewhat easier to identify the correct respondents. Slave-owners were the primary perpetrators of the historic harm, but they were supported by their various state governments, and ultimately by the national government. All governments take on the responsibilities and debts of their predecessors. The present-day government of the U.S., and the governments of the states that permitted slavery (in the North as well as the South), are the correctly identified respondents to the claim for reparations. Some public and private institutions may also be respondents, as discussed further below. Some commentators also suggest that descendants of individual slave owners are correct respondents.

Very recently the American government did make some symbolic reparation for slavery, without, however, using the vocabulary of reparation. Plans in 2004 were underway to build a museum of African American history in Washington (Cornwall 2003). Such a museum acts as a monument, a recognition of past evils. By 2004 no apology for slavery had yet been offered by the national government, however. Both President Bill Clinton in 1998 and President George W. Bush in 2003 acknowledged the evils of slavery during state visits to Africa, but they did not acknowledge these evils in any formal way while on the territory of the U.S. (Bush 2003; Clinton 1998; Ross 1998). There was still no serious discussion of monetary reparations. In 2004 it did not appear that a government considering financial compensation — or even symbolic rhetorical compensation — to African Americans would enjoy electoral support on this issue. A 1997 poll showed that 88% of whites opposed paying reparations (Feagin & O'Brien 1999:343).

In any case, the social movement for reparations to African Americans is still weak. There is no legitimate collective representative demanding compensation: rather, there are only some private organizations, among the most prominent of which are the National Coalition of Blacks for Reparations in America (N'COBRA) (Aiyetoro 2003) and TransAfrica Forum. The claimants enjoy few, if any allies, although one Congressional representative, John Conyers, has several times introduced a Bill suggesting a formal study of the reparations question, most recently known as H.R. 40, into the House of Congress.¹⁷ This Bill claimed compensation for the "40 acres and a mule" allegedly promised to all African Americans when slavery was abolished.¹⁸ Another representative, Tony P. Hall, unsuccessfully introduced a Resolution for an apology to African Americans in 1997.¹⁹

So far, the small social movement for reparations has occasionally used the tactic of the politics of shame. In 2001 Yale University was subject to the politics of embarrassment, when three graduate students revealed that many of its principal buildings had been named after slave owners (Brophy 2001). More recently, Brown University set up a commission to investigate its own history and to decide on possible remedies, after exposure of the fact that some members of the Brown family after whom the University was named had engaged in the shipping of slaves (although others became staunch abolitionists) (Belluck 2004). Activists also

attempted to use lawsuits to target private companies that, they alleged, had been involved in slavery or the slave trade. The most important case (still unresolved at the time of writing) was against several financial and insurance companies in the U.S. whose nineteenth-century predecessors were known to have insured slaves as property, against illness and death.²⁰ Another lawsuit was filed in Britain against Lloyd's of London, historically a major insurer of ships that by implication must have insured slave ships (Walsh 2004). That the African American reparations movement can use these tactics is a consequence of the fact that African Americans are, however unequally, citizens of the U.S., the country in which they make their claims. Even though they possess no punitive resources, they can embarrass the country to which they belong. The movement's putative constituency is not only all African-Americans, but also sympathetic (and embarrassed) white and other Americans.

THE JIM CROW ERA

As is the case regarding the period of legal slavery in the U.S., so also the injustices against African Americans during the post-slavery period of "Jim Crow" are in retrospect so obvious that proponents of reparations might think their case unassailable. The Jim Crow era stretches roughly from the legal end of slavery until the Civil Rights Act of 1964. During this era African Americans were always at risk of severe physical harm. Thousands were lynched, often as a result of false accusations of raping white women (Baughman 1966). The treatment of African Americans also violated the principle of equality rights. After the short period of Reconstruction, they lost the vote, which was subsequently routinely denied them until the civil rights movement of the 1950s and 1960s. They were subjected to educational, residential, and employment discrimination. African American property rights were insecure, always subject to disruption by white racists. Nor were they equally permitted opportunities to acquire property. Well into the 1950s, the federal government included restrictive covenants in mortgage loans, preventing African Americans from buying houses in white neighborhoods (Gary et al. 2000).

Most of these practices of persecution and discrimination, however, were not illegal at the time they were perpetrated. In the early twenty-first century, the very legality in earlier times of the oppressive treatment of African Americans constitutes part of the evidence that African Americans do deserve reparations. Yet claims for reparations for treatment in the Jim Crow era suffer the same disadvantages as claims for reparations for slavery. Most of the victims, and their immediate heirs, are deceased. The causal chain is long and difficult to determine, and perpetrators are diffuse. The amount to which claimants might in principle be entitled is indeterminate, and any amount calculated might be so large as to seem unreasonable to those expected to pay. Organization in favor of reparations for the

Jim Crow era is growing, but is still weak: essentially, the same set of actors is involved as in the claim for reparations for slavery.

Only in particular cases with clear victims, clear perpetrators, and finite harms have reparations claims for treatment during the Jim Crow era been successful. One such claim was filed on behalf of victims of the Tuskegee “medical” experiments, started in the 1930s and not ended until the 1970s. African American men who believed that they were being treated for syphilis were left without appropriate medical attention, in the interests of unethical “research” to determine how the untreated syphilis would progress. President Bill Clinton apologized to victims of the Tuskegee experiments in 1997, and reparations were provided in the form of a memorial at Tuskegee, and a grant to the university at Tuskegee to establish a center for bioethics research (Clinton 1997).

Two other cases of obvious injustice within living memory had contradictory results, however. About 120 blacks in Rosewood, Florida were burned out of their homes in 1923, and several were murdered, the ostensible reason being an assault on a white woman by a black man.²¹ After this pogrom (to use a word usually connected to European anti-Semitism, but an accurate description of this event) became a public issue in the 1990s, Rosewood victims and their descendants were awarded \$US 2.1 million in compensation (Wharton 2002). In 1921, a “race riot” in the black Greenwood area of Tulsa, Oklahoma, also set off by accusations that a black man had assaulted a white woman, left perhaps 75 to 300 individuals (including some whites) dead, and destroyed a community so prosperous that it had once been known as the “black Wall Street.”²² This terrible massacre was buried in history for decades, so much so that the local newspaper, the *Tulsa Tribune*, ignored it in 1936 and 1946 in its “this day fifteen (twenty-five) years ago” column (Franklin & Ellsworth 2001:26).²³ Yet while the facts were acknowledged by a state commission that reported in 2001, the only compensation awarded was medals to survivors (Staples 2003) and a scholarship program for Tulsa residents (Wharton 2002:3).

In all three of these cases from the Jim Crow era, Tuskegee, Rosewood, and Tulsa, the injustice, when eventually exposed in the 1990s, was so severe as to be obvious to American politicians, policy makers, and the general public. All three were within living memory of elderly survivors or their children. In the Tuskegee medical experiments (also resonating with knowledge of Nazi medical experiments [Lifton 1986]) victims were subject to grievous bodily harm, and their (retrospective) legal right to equality was violated. In Tulsa and Rosewood, individuals suffered grievous bodily harm, their formal right to equality was ignored, and their right to private property was violated. Tuskegee, Tulsa and Rosewood all became condensation points for general public perceptions of the Jim Crow era. The actions causing harm were discrete: the causal chain was short, and only a limited number of actors was involved. National, state and local governments, and some individuals, were responsible for the injustices and could be identified. The federal government acknowledged responsibility for the Tuskegee affair, and the

governments of Florida and Oklahoma acknowledged responsibility for the massacres in their respective jurisdictions. The victims could clearly be identified, and some were still living. Given these conditions, tactics of shaming worked effectively in the claim for reparations, as did media publicity, especially in the case of the 1997 film, *Rosewood*. Finally, the cost of reparations was not inhibitory.

Reparations Post Civil Rights Act

Forty years have passed since the Civil Rights Act clarified that discrimination against African Americans was illegal, yet during this period African Americans still did not enjoy the full range of rights that ought to be theirs by virtue of their American citizenship. There were still some, although many fewer, gross violations of human rights, such as lynchings. Although protected in principle, political and civil rights were not always protected in practice. Nor were property rights protected; discrimination in banking, mortgaging, and employment (a particularly important form of property in the modern world) still occurred.

Some injustices that occurred during this time were correctable through the American legal system. Particular cases of lynching, violation of property rights, or violation of the principle of equality could be addressed. In 1987, for example, the mother of a young man who was lynched by members of the Ku Klux Klan in Mobile, Alabama was awarded the property of the United Klans of America in compensation (Kunen 1987; Southern Poverty Law Center 2004). Laws protecting individuals from discrete, obviously illegal harms were now clearly in place. Victims and their immediate heirs were still alive. Perpetrators could be identified, and the causal chain in such events was simple and short. Politicians, policy makers and the public were guided by the law and by the obvious nature of these injustices to support rectification, whatever their private views of African Americans might have been.

Systemic injustices, however, were another matter. No effective social movement emerged to demand health care for blacks,²⁴ to correct the severe inequities of racially categorized “welfare” programs, or to assist black mothers to raise their children (Neubeck 2005; Neubeck & Casenave 2001). In 2002, an estimated 12 per cent of black males in their twenties and early thirties were in prison or jail: no social movement effectively addressed this problem (Harrison & Karberg 2003:11). No laws existed to enforce the socioeconomic rights of African Americans (in part because the U.S. does not acknowledge the existence of economic rights, which are protected by international law). The causes of the suffering of so many African-Americans were not easily identified and were attributable more to structural problems than to individuals, or even to governments. There were many difficulties in the affirmative action policy, which might be seen retrospectively as a type of reparation, although not originally devised using reparations language. Affirmative action appeared to violate the equality rights of some whites, did not

necessarily target the appropriate members of the African American community, and appeared to apply a relatively blunt instrument to a complex problem.

Tactics of shaming, media publicity, boycotts and lawsuits did not lend themselves easily to such complex, wide-ranging problems. Nor did the African-American community as a whole possess punitive resources (such as a threat to withdraw labor) that could effectively promote change, even if the community had been able to organize as one coherent bloc. Whether framed in terms of distributive justice or in terms of compensatory reparation, the particular need of black Americans remained unmet.

Successful and Unsuccessful Reparations Claims

I have used the literature on social movements to explain why it will be much more difficult for African Americans to win reparations than it was for Japanese Americans. The African American claim faces two major difficulties. First, it is difficult to frame the call for reparations in a convincing manner because many of the victims are long since dead, there are too many of them, and they cannot easily be identified. Second, the causal chain between past harms and present victims is too long and too complex, with too many actors and events implicated. By contrast, the Japanese American claim for reparations was easily framed. Both victims and perpetrators were easily identifiable, and the event took place over a short, finite period. The harm was clear, and the causal chain was short and lacking in complexity.

This analysis suggests that while there may be more symbolic acknowledgements — and perhaps even apologies for — slavery and the Jim Crow era, no large amounts of financial compensation will ever be forthcoming. On the other hand, discrete harms that violated key moral precepts such as the necessity for physical integrity, the principle of equality, and the sanctity of private property, and that occurred within living memory, may continue to result in some concrete reparations.

Those working for reparations to African Americans may enjoy more success in the future if they learn the lessons of other social movements. They must present clear, limited demands for recognizable wrongs, caused by recognizable agents and events. The victims must be a finite group, living in the present. And in the case of the call for financial reparations, the amounts must not be so large as to seem obviously unreasonable to the governments and publics of the states from whom reparations are claimed.

Notes

1. There had, however, been earlier discussions of reparations to African-Americans. See the excellent history of the reparations movement in Torpey (2004).

2. A companion piece to the present article compares reparations to Jews and continental Africans. See Howard-Hassmann & Lombardo (n.d.).
3. Much of my thinking on the claim for reparations as a social movement emerges from my reading of the brilliant book by Keck & Sikkink (1998), especially their discussions of causal chains, physical harm, ideals of equality, and condensation points, all matters I discuss below.
4. It is perhaps inappropriate for me, as a Canadian, to present my personal views here. But I think that the federal and state governments of the U.S. should acknowledge the grave harms committed against African Americans, apologize for them, and provide collective compensation, such as enhanced funding for predominantly African American schools. Institutions such as universities, churches or private corporations that participated in or benefited from the slave trade, slavery, and the subsequent oppression of African Americans have commensurate responsibilities.
5. I draw this point in part from the discussion of international duties in Orend (2002).
6. Browne (1972:69) summarizes various motives for reparations.
7. Except where otherwise noted, this section is based on Barkan (2000:30-45) and Brooks (1999:157-228).
8. The Order is printed in Brooks (1999:169-70). Even though they lived much closer to Japan, Hawaiian Japanese were not interned, presumably because they were too numerous and economically central to Hawaii (Barkan 2000:32).
9. A similar apology and compensation were awarded in 1988 to the Japanese-Canadian community, which also experienced internship. For the statement of apology by Prime Minister Brian Mulroney, see House of Commons (1988).
10. For a 1984 defense of the order written by one of the people involved in the decision to relocate the Japanese Americans, see "Letter from John J. McCloy to Jane B. Kaihatsu," in Brooks (1999:222-25).
11. Report of the Commission on Wartime Relocation and Internment of Civilians, *Personal Justice Denied*, Washington, D.C.: U.S. Government Printing Office, 1982, pp. 1-2 and 16-23, excerpted in Brooks (1999:171-76). Quotation from p. 173.
12. Japanese-Canadians relied on the rhetoric of equality rights in making their claims for compensation. See Kobayashi (1992:4).
13. Barkan (2000:33) also makes this point.
14. I use the term *slave* to designate a legal status, not a state of mind or psychological predisposition.
15. On the various powers held over slaves over time, in various states, see the classic volume by Higginbotham (1978).
16. A fact which causes Block (2002) to make the libertarian argument that the descendants of slave owners in the U.S. owe financial compensation to the descendants of the slaves that their ancestors owned.

17. Congressman John Conyers of Michigan, "The Commission to Study Reparations Proposals," in Brooks (1999:367–69).
18. Major-General W.T. Sherman, "Special Field Order No. 15, 'Forty Acres and a Mule'", issued at Headquarters, Military Division of the Mississippi, in the Field, Savannah, Georgia, January 16, 1865, in Brooks (1999:365–66). There is no mention of a mule in this Order, which actually gave "three respectable negroes, heads of families" 120 acres to share equally amongst themselves.
19. Congressman Tony P. Hall of Ohio, "Defense of Congressional Resolution Apologizing for Slavery," in Brooks (1999:350–51).
20. "Daedria Farmer-Paellmann vs Fleetboston Financial Corporation, Aetna Inc., CSX and their predecessors," United States District Court for the Eastern District of New York, March 26, 2002. Reprinted in Winbush (2003:348–60).
21. See the Special Master's Final Report, "Rosewood Victims vs. State of Florida", March 24, 1994, <<http://afgen.com/roswood2.html>>
22. See the Oklahoma Commission to Study the Tulsa Race Riot of 1921, *Tulsa Race Riot: Report*, February 28, 2001. See also Halliburton (1972) and Brune (2002).
23. John Hope Franklin, the distinguished African American historian, was himself a five-year-old survivor of the Tulsa massacre: his father was a Greenwood lawyer.
24. In 2002, 20.2% of African Americans were without health insurance, compared to 10.7% of white, non-Hispanic Americans. (Note, however, that the uninsured rate was even higher among Latinos, at 32.4 per cent, and among noncitizen immigrants, at 43.3%). See the Center on Budget and Policy Priorities, News Release, "Number of Americans without Health Insurance Rose in 2002," October 8, 2003, p. 3.

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If a Tree Falls in the Wilderness: Reparations, Academic Silences, and Social Justice*

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If a fellow Hebrew, a man or a woman, sells himself to you and serves you six years, in the seventh year you must let him go free. And when you release him, do not send him away empty-handed. Supply him liberally from your flock, your threshing floor and your winepress. Give to him as the Lord your God has blessed you. Remember that you were slaves in Egypt and the Lord your God redeemed you. That is why I give you this command . . . Do not consider it a hardship to set your servant free, because his service to you these six years has been worth twice as much as that of a hired hand. And the Lord your God will bless you in everything you do. (Deuteronomy, 15:12-18)

I am a descendant of slaves. I know this with certainty. My paternal grandfather, as a sharecropper, worked the same land his father and grandfather worked as slaves on the plantation, now a town located in Coatesville, Mississippi, from which we take our name. My maternal great-great-grandmother, raped by her “massa,” lived in shame for the rest of her life. The light skin that my family still possesses bares witness to this event. It is not with shame, however, that we band together, but with the pride that comes with prevailing. No one asked any of my ancestors if they wanted to be kidnapped from their land, enslaved, raped, or if they wanted to be sharecroppers or work till they died from exhaustion. We have never expected, begged, or asked for anything that was not our just due from those who stole our lives and our heritage or who tried to destroy our futures. Although exploited, we have never internalized the victimization, thus we have never been victims. While holding European and American greed responsible, we have never blamed individual whites. While western imperialism is guilty, we, deprived, have never been depraved. We have been and continue to be overcomers and survivors.

It is with this background, which obviously influences my orientation, that I begin this article on reparations. I cannot even imagine approaching this from a value-neutral perspective. Given this bias, I wonder why apologies and atonements, restitution and just remedies, have been so long in coming. We have seen too many unmet promises made in the haste of the guilty moment, too many half-

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empty glasses placed on the table of despair, and too many dreams deferred as lynch mobs, white citizens leagues, and gangs of thugs snatch our fruit from the vines. We have no faith that the rapists, kidnappers, or murderers and those who have benefitted from their actions will willingly acknowledge their guilt or choose to make restitution. Watching the past through lens distorted with deceit and despair, we fully understand that promises made have all too quickly been forgotten, and that that which has been given has either been not worth the having or quickly taken away. The past, filled with conspiracies and exploitation, does not give me much hope for future restitution in the form of reparations or anything else. We, the descendants of this conspiracy, do not anticipate anything but the little we have always received — unless we present our case for receiving more. It is in the spirit of justice that I write — not for a handout but a paycheck, not for welfare but our fair share, not for crumbs that fall from the massa's table — but for the wealth represented by the houses built by the Africans. No, in the spirit of liberty we make our just demands. We require nothing that we did not create through our own devices. We will make our way, we will take what is only our due for services rendered, lives lost, and hopes deferred. It is our call for justice, and our own labor, that we will therefore secure a future for oursevels and our prosperity. Again, it is not as beggars that we view our past, experience our present, and pursue our future. It is as survivors that we will guarantee our prosperity and social justice, “by any means necessary.” We therefore do not wait for reparations, although just, for our future to unfold. Though we acknowledge the past, we are not dependent upon it to dictate our paths.

Doing the Unthinkable: Profit, It's All about Profit

This also makes a gain of upwards of 30%, or £9 8 s. 5 d. on the sale of each slave; and determines the prime cost on the Coast to be £27 5 s. 10 d.

This calculation will be allowed by all judges of the African trade to be sufficiently near the truth to justify a conclusion that, in the year 1786, the town of Liverpool returned a net profit of £298,462 sterling, and that during eleven years the gains on 303,737 slaves, returned in the summary as sold from 1783 to 1793, both inclusive, was £2,361,455 6 s. 1 d., or on an average, 214,676 pounds, 15 shillings, and one penny per annum.

This great annual return of wealth may be said to pervade the whole town, increasing the fortunes of the principal adventurers, and contributing to the support of the majority of the inhabitants; almost every man in Liverpool is a merchant, and he who cannot send a bale, will send a bandbox, it will therefore create little astonishment that the attractive African meteor has from time to time so dazzled their ideas, that almost every order of people is interested in a Guinea cargo. (Donnan 1969:623-24)

This “attractive African meteor” did not fall from the sky; it fell from the souls of a people taken from their land in order to satisfy European greed. This greed, not a quest for freedom, led to the imperialistic quest for fortune at the expense of people of color, primarily Africans, an estimated 12-15 million.¹

Two hundred years after European royalty conspired to create a monopoly in the trade of human flesh,² just months after the southern compromise that not only gave constitutional acceptance to slavery but also declared the slave as less than human and Thomas Jefferson “reluctantly” altered the Declaration of Independence to exclude condemnation of King George’s complicity in this same trade,³ General Washington and the Continental Congress agreed to reward voluntary service in the Revolutionary Army with a slave. Thus, from this nation’s official beginning, liberty was nourished with the blood of the African. Throughout this period there were deliberate plans, capricious conspiracies, and determined efforts to ensure that the African would never gain full access to or secure any of the blessings of democracy. Some might indeed find it ludicrous that in this present age there are those descendants of slaves who would dare to seek remedies in the form of reparations. Such remedies would presume that the horrors of rape, kidnap, and murder visited upon an estimated 12-15 million Africans are of little consequence to their descendants, this nation, or Africa. Such remedies, some might say, would also presume that present day institutions, corporate bodies, and individuals no longer are benefiting from these deeds so long lost in the pages of history. Based upon evidence presented immediately below, one would have to conclude that any social or political scientists that dared to give credence to these types of follies would only indicate their insanity, for obviously such conversations indicate a lack of credibility, lack of objectivity, or lack of historical perspective. It is my purpose in this article to demonstrate that such calls, under the rubric of social justice, while totally ignored, do have legitimacy in the professional discourse of sociology and should be aired in a scholarly journal such as *Social Forces*.

Trees in the Wilderness: Arguments of the Esoteric

As discussed in the next section, the esoteric nature of reparations arguments suggests an academic riddle not unlike the freshmen essay regarding trees in the wilderness. Similarly, it is my belief that academic silences on significant issues amounts to little more than conspiracies of complacency, abdication of intellectual responsibilities, or acquiescence to the ideas of the ruling elite. The sheer lack of any significant conversation within the discipline suggests that an examination of the trees falling in the wilderness might be in order. Hence, we shall interrogate the historical record of reparations. As it seems prudent, our historical overview should begin at a source that we can all agree upon as being legitimate. Slavery was, as all must conclude, a legal system supported by the laws of the land.⁴ Any disputes regarding laws are most expeditiously dealt with in the courts. Therefore,

it follows that the courts can be viewed not only as a collective arbiter but as a body that determined which laws were legitimately, constitutionally, enforceable. I trust that any reader will accept the authority of the Supreme Court, as the high court of the land, as being sufficiently authoritative as to provide our initial point of reference.

At first glance, one may be tempted to conclude that the mere absence of any direct statements regarding reparations for slavery would be *prima facie* evidence that there is no legal precedence for such in U.S. law. But this is not the case, for during colonial times the system of indentured servitude provided for what was termed *freedom dues*. The fact that the system of slavery that eventually developed in the U.S. evolved from this system would lead to the conclusion that early freed slaves might have been provided such freedom dues. Such was indeed the case with a slave simply known as "Betsey." It seems that Betsey, having come of age during Pennsylvania's gradual abolition of slavery in the 1780s, found her status as a free person challenged. The High Court, in supporting her right to ultimate freedom, also stipulated:

Though the act of Assembly with respect to this question is not so clear as it might have been, [***7] and as I could wish it, and though different gentlemen may reasonably entertain different sentiments concerning it, yet as I must give an opinion, it must be my own. Upon the whole then, I think, that negro Betsey should remain as a servant until she shall arrive to the age of twenty eight years, unless freed sooner by her master; and that she be then intitled to the like *freedom dues* and other privileges, as if she had been borne after passing the act for the gradual abolition of slavery. (*Respublica v. Betsey*)

These freedom dues, identified in the 1780 Pennsylvania Act for the Gradual Abolition of Slavery:

Provided always, that every negro and mulatto child born within this state after the passing of this act as aforesaid, (who would, in case this act had not been made, have been born a servant for years, or life, or a slave,) shall be deemed to be, and shall be, by virtue of this act, the servant of such persons, or her or his assigns, who would in such case have been entitled to like relief in case he or she shall be evilly treated by his or her master or mistress, and to like *freedom dues*, and other privileges, as servants bound by indenture for four years are or may be entitled; unless the person to whom the service of any such child shall belong, shall abandon his or her claim to the same; in which case the overseers of the poor of the city, township, or district respectively, where such child shall be so abandoned, [***3] shall by indenture bind out every child so abandoned, as an apprentice, for a time not exceeding the age herein before limited for the service of such children. (Cited in *Prigg v. Pennsylvania*)

This passage is particularly insightful for it argues that the freed slave should be treated in the same regard as an indentured servant who had served the customary term of about four years. Freedom dues⁵ "usually included a piece of land and supplies, including a gun" (WGBH 1998). Of interest is the observation that these

are the only identifiable citations regarding freedom dues to be found associated with slaves. Only one other case is identified during the 1840s regarding a bond servant, but since this was explicitly listed as a bond servant and not a slave, we must conclude that with the gradual replacement of European bond servants with African slaves, this principle was considered applicable only to white, not black, servants (see *Ex parte Breneman* 1842). Any doubt was cleared up with the *Dred Scott* case. In this case the Court determined that U.S. citizenship, with all of its rights and privileges, were not intended to be enjoyed by the African (whether free or slave).

It will be observed that the plea applies only to that class of persons whose ancestors were negroes of the African race, and imported into this country, and sold and held as slaves. . . . The question before us is whether the class of persons described in the plea in abatement compose a portion of this people, and are constituent members of this sovereignty? We think they are not, and that they are not included, and were not intended to be included, under the word "citizens" in the Constitution, and can therefore claim none of the rights and privileges which that instrument provides for and secures to citizens of the U.S. On the contrary, they were at that time considered as a subordinate and inferior class of beings, who had been subjugated by the dominant race, and, whether emancipated or not, yet remained subject to their authority, and had no rights or privileges but such as those who held the power and the Government might choose to grant them (*Scott v. Sanford*).

This clearly lays out the legal, and thus official U.S. position regarding the African. It was only when the rights of whites as property holders were threatened, not the rights of the African as a human, that the court saw fit to order remedies, restitution, or reparations. It was not until the Civil War and Reconstruction that any significant national discussion regarding remedies specific to the African would be entertained.

A Thumbnail Sketch of the History of Reparations⁶

1865: Union Maj. Gen. William T. Sherman declares that a strip of land along the Southeast coast be set aside for freed slaves; families can receive up to 40 acres. The federal government also establishes the Freedmen's Bureau to provide assistance. But, within the year, President Andrew Johnson undermines Sherman and weakens the bureau.

1890: William R. Vaughan, a white man from Alabama, persuades members of Congress to introduce the first of nine bills mandating federal pensions for former slaves, but none of the bills passes.

1890s: African Methodist Episcopal Church Bishop Henry M. Turner campaigns to secure reparations for black Americans. He estimated blacks were owed \$40 billion dollars for 200 years of unpaid labor.

1897: The Ex-Slave Mutual Relief, Bounty and Pension Association is founded. Under the leadership of Callie House, it eventually enlists hundreds of thousands of members, but the government later indicts House for mail fraud. After serving time in prison, she helps file a lawsuit demanding African Americans receive \$69 million acquired through cotton taxes.

1962: New York activist Queen Mother Audley Moore submits a petition to the United Nations asking the U.S. government to pay slavery reparations.

1968: Radicals in Detroit form the Republic of New Africa, demanding five Southern states and \$400 billion.

1969: Civil rights activist James Forman marches into a service at the mostly white Riverside Church in New York City and begins reading his "Black Manifesto." Forman charges white churches and synagogues with complicity in slavery and racial oppression and asks them to pay restitution.

1971: The U.S. government agrees to grant \$1 billion and 44 million acres to Native American tribes in Alaska.

1988: Congress allocates \$20,000 for each Japanese American survivor of internment camps. Meanwhile, activists form the National Coalition of Blacks for Reparations in America.

1989: A reparations bill introduced in Massachusetts by state Senator William Owens languishes. And U.S. Rep. John Conyers Jr., a Detroit Democrat, calls for a federal study of slavery, racial discrimination, and "appropriate remedies." The bill does not leave the House Judiciary Committee. Conyers reintroduces it every subsequent year, with similar results.

1995: A federal appeals court in California dismisses *Cato v. United States*, which asked for \$100 million in slavery reparations. Judges can find no law allowing the government to be sued for slavery, declaring it an issue for Congress.

1997: U.S. Representative Tony Hall, a white Ohio Democrat, introduces a resolution asking Congress to formally apologize for slavery. Despite provoking intense debate, it is buried in committee.

1999: Acknowledging a pattern of discrimination, the U.S. Department of Agriculture agrees to pay restitution to thousands of black farmers.

2000: Randall Robinson's *The Debt: What America Owes to Blacks*, an argument for reparations, is published, becoming a bestseller and dramatically raising the movement's profile.

2001: Writer and activist David Horowitz places an advertisement in college newspapers around the country, arguing that blacks have benefited from being brought to America. And, after intense lobbying, the final document of the United

Nations World Conference against Racism in Durban, South Africa, declares that slavery was a crime against humanity.

2002: Deadria Farmer-Paellmann, a New York advocate, files a class-action lawsuit against several major corporations for profiting from slavery and violating human rights laws. By the end of the year, the case is consolidated with eight others and moved to federal court in Chicago. Over the summer, activist Conrad Worrill co-organizes a rally in Washington, D.C., that draws thousands of reparations supporters. And in October, the Chicago City Council passes the Slavery Era Disclosure Ordinance, requiring firms that want contracts with the city to investigate and reveal ties to slavery.

2003: Virginia residents Robert L. Foster and his daughter Crystal are sentenced to prison after filing an income tax return claiming she was owed \$500,000 for reparations.

Sociology and the Awkwardness of Social Justice

Today it is once again fashionable to discuss noble disciplinarian goals, as we — apparently worried about our declining numbers, intellectual prestige, and academic legitimacy — embrace the masses with calls for public or liberation sociology. Such calls fly in the face of our long history of corporate sponsorship, governmental apologists, and pamperers of the elite. We must not forget our heritage.

The father of modern sociology, Auguste Comte, with his practical mission of the discipline, encouraged the use the positivistic science and technology to heal the problems of modern society. The application of this science has more often than not been used to support the power elite. Perhaps this is why, in a search of the on-line document delivery service, JSTOR, of the 412 citations identified in all available editions⁷ of 34 sociological journals, only four articles could be identified that discussed reparations for Africans or African Americans.⁸ The reader should not conclude that this is somehow aberrant, for similar findings can be found by simple searches in any of the related disciplines. For example, if we ran the same search across the 33 political science journals⁹ (in some cases this covers their entire publication history), only 3 of the 1,301 total articles dealing with reparations have discussions regarding Africans or African Americans. This suggests that if one is either a sociologist or a political scientist, he or she would have to be impractical (or perhaps crazy) to even contemplate doing research or perhaps even teaching in the area of reparations. Alternatively, by way of comparison, if one were to do this search in the 21 journals¹⁰ that focus either on Africa or African Americans, they would find a total of 78 articles on reparations. A simple search through the law reviews, made possible by Lexis Nexis, reveals hundreds of articles

for just the past five years all dealing with reparations and slavery. The sheer volume of these articles suggests more than mere absence of malice, but intentionality in the social science community. This observation is but a small leap to the conclusion that a conspiracy of silence exists within the social science disciplines. In my younger days, I would have been tempted to run with this as evidence of a conspiracy of silence. Loaded with Marxian rhetoric, I would have interpreted this silence in the wilderness as further proof that the ruling ideas are the ideas of the ruling elite. Or reflecting again on the Dred Scott decision, we see that the concerns and interests of the Africans and their descendents are considered to be without merit or substance in a mainstream dominated by the ruling elite. Consequently, while reparations have been discussed by Africans and the Diaspora for more than 200 years, while thousands of discussions can be identified among legal scholars, discussions enough to fell not only trees but whole forests, absent any witnesses from the mainstream they fall into a sociological wasteland, academic silence, or on deaf ears.

Breaking the Silence: The Call for Social Justice

When Thomas Jefferson conceived of the Declaration of Independence, he understood that he could not appeal to the law, for the laws of colonial America were written by, and supportive of, the imperial rule of the British Crown. Jefferson therefore devised an argument that appealed to a higher power, a higher set of principles, and a higher rule of law. These “endowments,” which he referred to, were guaranteed by a Creator to all humans. These endowments, which include the rights to life, liberty, and the pursuit of happiness — were guaranteed by the social contract that is implicitly part of the fabric that joins us all. Social justice, as we learn from Rawls (1971), requires that this contract is honored for all, particularly those at the lowest ranks of our society. Simply put, if social justice applies only to the Thomas Jeffersons, the George Washingtons, or Ben Franklins, then it is of little consequence. The adequacy of the social contract is to be measured to the extent that social justice is available to the Sally Hemmingses, Harriet Jacobs, and Frederick Douglasses.

The reliance of social justice rather than civil justice is of critical importance. Civil justice, with its explicit links to the rights and privileges of citizenship, does not (as Chief Justice Tanney clearly argued) apply to those outside the pale of societal membership. Civil justice, also reliant upon the laws of the day, is controlled and contrived to protect the powerful, often at the expense of the weak. This is a fact understood even by the Federalists, who argued that there must be an arbitrator between the interest of the weak and the powerful. While the Federalists envisioned the government (to include the judiciary) as this arbitrator, Jefferson, slaves, and their descendants understood that such reliance was not always prudent. Higher powers, courts, and principles have frequently served to invigorate calls for change,

calls for action, and calls for equity. These calls, while often appearing to be in the wilderness, have forever relied upon the principles of social justice to answer them.

Social justice, I would argue, falls in the unique preserve of sociology. This preserve has long been staked out by such figures as Comte, Weber, Durkheim, Marx, Du Bois, Cox, Genovese, Parks, Veblin, Thomas, Drake, and, of late, Wilson, Feagin, and Burawoy, to name but a few. As one considers the brief list presented above, they might, upon reflection, realize that the list consists of radicals and conservatives, revolutionaries and apologists, pragmatists and ideologues. Undergirding these apparent inconsistencies, one may identify the common thread of societal improvement, social change, and progress. Lacking any better term, this common thread may be described as *social justice*. Critical ideological differences between these particular sociologists can be linked to which societal groups their perspectives support. For simplicity sake, and for the purpose of illustration, we can suggest polar extremes representing what Weber might call “ideal types” to capture the essence of these ideological differences. For example, we could describe one group of sociologists as “bourgeois sociologists,” often suggesting a value-free or value-neutral perspective, who often aligned with the state, the corporation, or the elite. Alternatively, at the other extreme, we can identify another group of sociologists who may be described as “public sociologists,” often purposefully pursuing specific values, suggesting a humanist or progressive perspective, who often align with the oppressed, the underclass, or the exploited worker. Consequently, the bourgeois promote vision of political stability, global economic cooperation, and peaceful labor relations. Public sociologists promote vision of egalitarianism, humanism, and redistributive justice. There is no need to repeat these distinctions as they have been made elsewhere, not only by this author (Coates 2004), but others (e.g., Feagin & Vera 2001). The links between the sociological enterprise and social justice may need further clarification.

Perhaps the best place to begin is with the work of Thurston Veblin, for it is his distinction between public issues and personal troubles that the link between social justice and sociology is most succinctly made. Recalling this distinction, it should be noted that he does not rely upon legal, or political, or even economic arguments. He merely insists that if a significant number of the population is experiencing hardships, then it is a public issue or a social problem. Whether or not these problems are a result of the workings of the industrial, political, or other structural conditions operant within society is of little concern. The concern is the magnitude of the problem, the extent of the crises, and hence the need for corrective social action. As Veblin reasons, the larger the population negatively affected the more severe the problem for society. Alternatively, Weber’s “iron law of oligarchy” and Durkheim’s “anomic division of labor,” increasingly predictable given our bureaucratically organized, industrial based, capitalist society, were nevertheless social problems to which society had to respond. These particular problems — one resulting from what may be called the tyranny of the minority, and the other the tyranny of the majority — are described respectively by Weber and Durkheim as

society-wide problems. The distinctions between the problems identified by Veblin and Weber/Durkheim reflect the public vs. bourgeois continuum identified above. In either cases, Veblin, Weber, or Durkheim, the insistence was that these problems required not only our study, but also our deliberate actions in order to avoid social catastrophe. Marx, looking at the overwhelmingly exploitative nature of modern capitalism, held that the only solution for continued social progress rested in a social revolution where capital itself was destroyed. Merton, a devout functionalist, argued that when the value of upward mobility is accepted by members of society whose access to such mobility is thwarted there is an increased likelihood that they will choose deviant paths to achieve mobility. Wilson, after concluding that the “truly disadvantaged” were increasingly left behind “when work disappears,” argued that only through a major reinvestment in our urban cores can we halt the process. Throughout the discipline, we observe calls for solutions, calls for remedies, and calls for action. We observe that regardless of sociological perspective, whether from a bourgeois or from a public stance, these calls reverberate throughout the discipline. The link that joins them all is an implicit call for solutions, a call for remedies, and a call for action. Obviously, all of these calls rest upon the foundation of social justice. Social justice is no where better illustrated then in the case for reparations. It also provides a clarification regarding a practical agenda for the discipline and for the nation as well.

Social Justice and the Case for Reparations

Western imperialism based its progress, purpose, and future on the three-tiered oppressive structure of race, class, and gender. This structure provided the platform by which wealth was accumulated, riches were realized, and status attained. This structure once institutionalized became the cultural bedrock upon which each succeeding group was not only socialized, but also “racialized” and sexualized, and upon which class was deified. Inherent in this cultural bedrock is the value of whiteness and the devalued status of blackness. Consequently, groups seeking acceptance and enhanced access to the western cultural experience learned early to play the race game. The game, rigged from the start, has increased the players but has also maintained the original racial order. Hence, at the top of the racial order have remained whites (preferably of English descent) and at the bottom, blacks, preferably those which are descendants of the slaves. Of interest in this racial hierarchy is the fact that even those blacks who emigrate from other countries also learn to play the race game. They too do not identify with the indigenous blacks, nor do they experience the same type of racial stigmas as do other groups. It is as if blacks have been the official welcoming mat for all groups. What is even stranger, each generation of scholars produces research that not only identifies but justifies this strange game (Fairlie & Meyer 1996; Fenton 1957; Spencer, Kim & Marshall 1987). And when change is called for, it is only for the briefest of moments that we

see through the seven veils. Regardless of sight or insight, no significant calls are entertained that even suggest structural transformation, redistributive justice, or significant sociopolitical or economic change. Thus, it is surprising that each generation looks with feigned awe at the outcome of hyperexploitative, excessive victimization, and super-oppression whose primary targets have been blacks and other people of color. I find it all but incredulous that anyone would be surprised at the outcome of each of the viscous generational cycles. The primary laws of slavery made it illegal to teach slaves to read or write. White labor organized itself to eliminate or restrict competition with blacks.

For over 300 years slavery was the law and the reality of America. If, as some would argue, slavery had ended with the Civil War and Reconstruction had been allowed to take its course, this conversation today regarding reparations and the continuing legacy of racial oppression, exploitation, and discrimination would be pointless. But this was not the case. The Civil War and the cessation of Reconstruction gave rise to the reinstitution of slavery under the guise of the colonization of Africa by Europe and the institution of black codes in this country. Apartheid-like structures — denying black access to education, jobs, power and status while ensuring white access to the same — became enforced by law and custom. Thus while *de jure* slavery came to an end, *de facto* slavery continued in both Africa and throughout the Diaspora. *De facto* slavery, in the forms of African colonialism and black codes in this country, thus represents the unbroken river of pain, hyper-exploitation, and super oppression experienced by the African and Diaspora which formally did not end until the mid-to late 1960s.

State-sponsored and supported violence, sanctions and rewards created and perpetuated to punish black innovation account for a significant degree of poverty, failure, and frustration that exist within socially contrived black ghettos. Adding to this, public and private institutions were deliberately constructed to prevent blacks from obtaining a lasting foothold in the social, political, and economic soil of America. And, the tune has become part of the melody in the American symphony. With the decline in the most blatant forms of racial exploitation and oppression, we note that the more subtle forms of its tentacles are ever present, hiding under the shroud of class, and determining the life chances of those blacks who have an apparently permanent place among the truly disadvantaged. These blacks, a permanent fixture at the bottom of the economic barrel, in a racialized America, we continue to see the most extremes of the American nightmare. Among this group, the theme has for three decades been benign neglect.

Sociologists are well aware of these conditions. They have reported, documented, and catalogued them for the over 100 years of the discipline's existence. No group, or its situation, I believe, has been more studied or misunderstood, more problematized or stigmatized than the African group. All the remedies, solutions, and policy perspectives have failed to significantly reduce, eliminate, or redefine the problems experienced by people of African descent. When one discusses race, poverty, crime, social problems, pathology, welfare, family dissolution, juvenile

delinquency, drug abuse, etc., — social problems writ large — then the prime example (implicitly or explicitly) often becomes the African. Put another way, for every type of sociological research, the negative beta associated with blacks, regardless of issue, suggests that either blacks are problematical or blacks have been problematized. Research seems to suggest that black people are one of the most irreclaimable and corrupt of all peoples or that the problem is not with black people but with the sociocultural milieu in which they live. Either the *Bell Curve* (Richard Herrnstein and Charles Murray), which blames the victim and the culture of poverty, is an adequate description of the black community, or the western experience, hyper-exploitation, and pseudo-scientific mysticism have served to undermine black existence. Further, if we assume good faith efforts ranging from legislation to social policies and programs, from court actions to social actions, have had little to no impact, then we either accept failure and we give up, or we look elsewhere for solutions.

Is it not strange that the only loans that have been typically available to Africa are those for purchasing weapons of mass exploitation and hyper-resource extraction? Is it not strange that, with trillions of dollars that have poured into Africa for these purposes, not a single dime has gone to build an industrial base? (See, e.g., *Economic Report on Africa 2004: Unlocking Africa's Trade Potential in the Global Economy Overview*, <http://www.uneca.org/cfm/2004/overview.htm>.)¹¹ No industrial centers of any magnitude exist on the entire continent of Africa. Nowhere in the entire world is this the case but in Africa. Is it not strange that in the U.S. the only businesses that are encouraged to enter into the disempowerment zones called “inner cities” or “ghettos” are liquor stores, rent-to-own, funeral homes, and fast food places? Is it not strange that the only banking institutions that cross the red line are check-into-cash places, and the only businessmen are those who stand on the corners and sell white powder, green leaves, and brown flakes from little plastic bags? Is it not strange that the most common job training typically offered either on the continent or within the community is domestic service? Is it not strange that frequent answers from both conservatives and liberals are jail, welfare, subservience or super-dependency, resignation or benign neglect? Is it not strange that in the academy, under the rubric of scientific neutrality, silence and value-free rhetoric hides the complicity that comes with aiding and abetting. Is it not strange that every president from George Washington to George Bush have refused to acknowledge the wrong, offer any apology, or suggest any strategy for redress? Is it not strange that American diplomats have walked out of every international discussion, United Nations meetings, and refused to partake in any meaningful dialogue regarding the just complaints of Africa and the Diaspora? Is it not strange that these calls for justice go unanswered, ignored, and unheeded by the Western world? And is it not strange that the African American, heard or not, heeded or ignored, continues to hear this call, as it reverberates in memory, in hearts and in the minds of each generation of African, both on the continent and the Diaspora?

Justice, delayed or denied, will not wither away with time, silence, or complacency. Justice, proscribed or contrived, planted deep within the human psyche will breach the voids, will roll down the mountain like a might river till we are all washed in its wake.

If smoking causes smoker's cough, then cough suppressants do little but hide the symptoms. If racial exploitation and oppression causes the problems experienced by blacks, then programs, policies, and actions that merely suppress the symptoms provide little remedy. Racial exploitation and oppression primarily serve to deny access to upward mobility, wealth accumulation through restrictions placed upon education and career development, economic investment opportunities, and political power. The only remedies to racial exploitation and oppression must therefore be in enhancing access to upward mobility, wealth accumulation, education, career development, economic investment, and political power.

There will be those that will point out that even affluent blacks fail to accomplish as much as their white counterparts. The so-called "bell curve" fails to take into consideration the historical legacy of racism and classism. To clarify, what surely needs no clarification today, the chief function, purpose, results of racism are pernicious, enduring, and infectious failure, frustration, poverty, and nihilism.¹² We are just now coming to grips with the reality of post traumatic stress syndrome (PTSS) with reference to the Viet Nam veterans. We observe that many of these tormented souls carry the scares, relive the nightmares, and are still being victimized by the war which officially ended almost 40 years ago. Given the fact that their tours of duty rarely lasted more than 12 months, the effects of this tragedy are still observable. Now, with reference to the American African, whose history of racial exploitation, victimization, and oppression extends some 500 years — how long will this legacy of abuses remain, how many generations will experience the ripple effects of this great 'meteor' hitting earth. I ask my students to imagine a boulder being catapulted into the air some 500 miles, then remind them that the distance to earth is that same 500 miles. The tragic journey experienced by America's African population endures along paths worn by racial rains, colored by racial pains, and distorted by racial agonies.

As some point to the few Bills, Everetts, or the Jennifers that have made it, others see the multitudes of nameless victims who have yet to find their way from the bottom of the well. Many of these victimized people have adopted either alternative (ghetto-specific) strategies to acquire the American dream, or have given up. For those about to take me out to lunch, I am not talking about a culture of poverty, but a poverty of opportunities. I am not talking about ghetto-specific behaviors but gangster mentalities made prevalent in a cultural experience that devalues all but whiteness. I am not talking about remedies that transform or reform the victim, but those that transform or reform the culture. It is like the smoker's cough, which I often got when I smoked cigarettes. For years, I treated the symptoms. I took cough syrup which suppressed the cough and gave me the illusion of a cure. It was

not, however, until I stopped smoking that my lungs actually began to heal. We in America, for over 100 years, have been treating the symptoms of a culture of racial hostility, exploitation, and oppression. We have placed Band-Aids upon hemorrhaging wounds — such Band-Aids as the thirteenth, fourteenth, and fifteenth amendments to the U.S. constitution, such things as the first, second, and third civil rights acts, the voting rights act, the antilynching bills, busing to achieve integration, affirmative action, empowerment zones, etc. These Band-Aids, many of which aimed to quiet an enraged black populace and a guilt-ridden white one, have done little more than frustrate the condition, aggravate the wounds, and accelerate the progression of cancer running rampant in America.

The extreme frustration, negativity and sense of hopelessness, lovelessness, and wanton abandonment of motivation is not associated with the weakening of the family, church and friendship networks as stipulated by West, but the accumulation of hopes dashed, dreams deferred, and lives lost — generation, after generation, after generation. As Wilson clearly discusses — when work disappears, so also does hope, love, and motivation. All too often the only systems our society allows to fill these voids are drugs, violence, and death. The few who escape this system of victimization are not to be marveled, for even systems of randomization allow for such. But the system, even under slavery, recognized that the pressure valve needed to be released, some had to be allowed freedom, in order to keep the others from reaching total collapse.

Now, in our advanced industrial society, capital can truly allow for a lumpen proletariat to exist. For now, the globalization of labor allows cheap European, Asian, African, and Latin American labor to continuously supplant the indigenous African. This system, long in the making, has never been sufficiently complete to exhaust all possibilities for indigenous populations. It has becoming increasingly more proficient and sophisticated at pitting one group of labor against another. And the most successful means of division, one learned in colonial America, was that of race. Hence, immigrating Europeans, Asians, and Africans, often willing to start at lower salaries, often displace those already at the bottom. Today, this is no more evident then in the domestic, construction, and service industry.

West argues that current market forces have so penetrated the black community that important institutional ties, which in past generations served as buffers, have been severed or weakened. These weakened institutional ties, reflected in the family, the church, and friendship networks — leaves the victim more exposed and hence more vulnerable. While West is partially correct in that the market forces are more pernicious today then in the past, I believe he confuses the symptoms with the causes. True, today's urban youth appear to be more hopeless and angry, but these are symptoms of much more pervasive, more complex structures. And while West does correctly recognize the need for redistributive measures, he nevertheless concludes by blaming the victim. For, according to West, it is the victimized who must overcome race, must accomplish a psychic conversion, learn to love

themselves, and reinvent their communal institutions. Then, with a philosophical wave of his hand, all the problems will magically disappear.

Mr. West, daydreams continue to produce nightmares, frustration begets hopelessness, and the victimized continue to spiral down the path to increased poverty. Freedom absent choice produces anxiety, and choice absent power produces frustration, and power absent responsibility anarchy. The slaves were told they were free, but as pointed out by Frederick Douglass and W.E.B. Du Bois, all they were free to do was starve, sleep in the cold, and eek out a meager existence. The proposed reconstruction made promises of choice but failed to deliver the sustained power to alleviate over 300 years of racial oppression, exploitation, and repression. But ever so brief, the light in the darkness shined, but the darkness comprehended it not. For power never willingly concedes anything, and power was once again snatched from the African, and the regime of the South was re-installed in power. Black codes, chain gangs, and the violence and lynching of the KKK reined hell throughout the south and much of America for the next hundred years. Again the dawn of the 1960s brought new hope and power. As this power, black and unshakeable, threatened to drench urban America in the wake of their sorrow, and fearing anarchy — the voices of appeasement, complacency, and the conservative promised change with all deliberate speed. As the long hot summers filled more and more of our realities, other band aids were proposed — culminating in Johnson's promises of a new reconstruction — the Great Society, etc. Today, as we watch these promises erode and the last relics of our collective guilt, affirmative action, slowly dismantled, a more significant, lasting, and permanent remedy must be achieved. I see no other remedy, no other measure that would provide for justice, of what West called redistributive justice but that of reparations.

Anything short of full remediation, full restoration, and full reparations will continue the process of applying Band-Aids to hemorrhaging wounds. Any program, policy, executive decision, or concerted efforts, history being our guide, will punish the victim with the stigma of a handout, the perception that blacks are getting something underserved, or the jealousy of whites that this benefit is “reverse discrimination.” Such practices ultimately become excuses for system failure, societal inadequacies, and political weakness. Such practices, during times of economic necessity or political complacency, quickly are reversed, reduced, or reconsidered as the failures, inadequacies, and weaknesses are transferred upon the backs of the victims. As a new generation, now politically astute and correct, learn how to “talk nasty” about blacks politely, we self-righteously turn our backs on the plight of the poor, urban underclass.

Reparations are not about placing guilt at the feet of whites, nor is it about claiming victim status for blacks. Blacks have experienced America as victims. Whites have benefited from their whiteness, and they have experienced American guilt. Reparations, however, are not about blacks feeling better about their blackness, or whites wincing with the weight of 500 years of collective guilt. Guilt and

victimhood politics, practices, and solutions rarely lead to anything but embarrassed reluctance on the part of the guilty and frustration and anxiety on the part of the victim. The guilty, attempting to seek absolution, are encouraged to make some gesture of atonement. Such gestures, rarely anything but tokens of attrition and contrition, always delivered with great fanfare, encourage the victim to believe that finally their remedies are forthcoming. Alas, as the guilt subsides, typically with the passage of time or the press of economic realities, resolve is weakened, programs are reduced or eliminated, and another cycle of unmet promises is recorded. Each cycle of guilt and victim identification, with its resultant policies and practices of appeasements producing even more anxieties and frustrations, culminates in another generation on both sides who loose faith in the capacity of the other to appropriately respond. These cycles, being repeated several times over the course of the American experience, have produced waves of guilt, victim identification, and frustration. This cyclic process has produced, within the white community, what Kozel has described as compassion fatigue, and, within the black community, what West describes (but mistakenly explains) as nihilism. The guilt cycle, producing at both extreme compassion fatigue and nihilism, can only be broken by a complete solution, a real attempt to restore people of African descent to their proper place in our global universe. We must repair the damage, we must remedy the harm, and we must reclaim that which was stolen. Put simply, social justice calls for reparations.

Social justice, in the form of reparations, is a social solution, not an individual one. Reparations are not a handout, but the just compensation for damages resulting from 500 years of forced enslavement, kidnapping, rape, segregation, discrimination, hyperexploitation, superoppression, and a system designed to continue the cycle of victimization for blacks. Reparations would be a social response to a social problem created by a social system. This response, in the form of a class action, would provide the resources for educational and health institutional upgrades, housing, and community development, business start-up funds and economic planning. Western imperialism, with its global dependency upon Africa and the African, for over 500 years (to include the formal slave, colonial and post colonial periods), must provide a global reparations response. African debt must be forgiven, European (lead by the English, French, Italians, and Germans), and U.S. governments and economic institutions must formally apologize and proceed to invest what I estimate should be 12–15 trillion dollars¹³ into the aforementioned African and black institutions, industrial bases, and economic markets. To continue the policy of handouts, welfare, foreign aid, IMF loans, is to continue the rape, exploitation, oppression, and victimization. Africa and Africans, the world over deserve the same type of investment strategies which rebuilt both Japan and Europe after the world wars. In both cases, we did more than provide loans, but we actively encouraged the development of modern, industrial based economies. Surely the 500 year debt owing to the African “meteors” should provide nothing less. Social justice is the only response, reparations the only cure. Absent such a commitment,

the cycles of guilt and frustration will continue till we are engulfed in the sea of nihilism, anger, and bitterness. Poverty, hopelessness, anger and bitterness produce volatile mixtures the world can ill afford to ignore. Repairing the damage, the just response to centuries of abuse, encourages the climate of forgiveness and sanity.

Reparations for Whom?

Is it not strange that the conversations regarding reparations have pitted those who have been victimized against those who have perpetuated the victimization? Is it not strange that the victimized have been placed in a situation where the legitimacy of their claims has been left to the determination of the perpetrators of the victimization? It is much like if the Jews of the Holocaust were to rely upon the Nazis and their descendents to provide them justice. Such a process, by definition, would be patently unfair, hence the need to bypass the civil, legal, and national judicial, legislative, and executive decision making bodies and appeal to the higher court of international public opinion where social justice reigns.

Much of Western history (political, social, economic and psychological) for the past 500 years has been "racialized" in an imperialist effort to maximize profits at the expense of hyperexploited groups pitted against each other in a strange game of divide and conquer. When confronted with the atrocities of this past, when forced to change its ways, when required to alter its plans, new and more insidious modes of exploitation and oppression have typically been developed. The goals of social justice reparations processes would be to deracialized the discourse, repair the damage, and restore the dignity to those whose heritages have been soiled by this system of oppression. In order to accomplish these goals it must be recognized that the primary purposes of slavery, racism, and racial exploitation was to ensure profits for a racialized group of elites at the expense of many other racialized non-elites. As we consider where we should go from here, we must avoid the racially divisive game whereby blame and victim status are the net results of our actions. These, sophisticated versions of "playing the dozens," produce little more than psychic band-aids. What we need to identify are specifics that have guaranteed outcomes, realizable within one generation. As discussed above, what we have had in the past are nebulous promises that produce little more than frustration, angst, mistrust, and continued exploitation.

In order to go past the promises and to actually identify solutions requires us to recognize the multiple levels of exploitation, multiple forms of oppression, and hence multiple parameters of redress that must be accomplished. Simply put, we must resist the easy fixes, transcend the racial riff, and embrace a future where all share both responsibility and benefits in the processes of reparations. I envision three specific processes associated with any form of reparations. I will leave it to the economists to fix a price tag, for I am concerned with social and not economic justice.¹⁴

The three processes, interrelated, would function on the African continent, within the various diasporic communities world wide, and within the wider communities of victims or related racially exploitative systems. What follows, due to space and time limitations, is an outline of these three processes.

MARSHALL TYPE PLAN FOR AFRICA

1. Forgiveness of all African debt.
2. Immediate investment into business, industrial development throughout Africa
 - a. not just extraction but manufacturing, refining, and production
 - b. markets development (internal and external), shipping capabilities
 - c. Financial stability through the development of an Afro-dollar, currency and trading center — an African stock exchange.
 - d. Immediate investment and development of technical (computer, engineering, etc.) and higher educational (medical, legal, etc.) university structure — facilitated by graduate scholarships to American, Western, and other institutions of higher educational and technical development.

DIASPORIC COMMUNITY DEVELOPMENT FUND

1. Forgiveness of all educational and business debts of African descendants in the Americas, Europe, etc. for those who have successfully completed their course of study and those whose businesses have been successfully engaged for a 10-15 year period of time.
2. Forgiveness of all educational and business debts of all non-African descendants who can show that they (or their families) were disparately harmed as a result of slavery, racism, racialism, etc. for any continuous 30-year period.

CREATION OF REPARATIONS EDUCATIONAL, SKILLS DEVELOPMENT, AND BUSINESS INNOVATION FUND

1. This fund would be open to all individuals regardless of race, creed, color, sexual orientation, and gender to fund higher educational pursuits, technical training, and business development. These loans would be repaid by either of the following two ways. (1) Recipients will agree to work, do business, or hire from specific communities for a stipulated number of years. Years would be determined by number of years of training financed, or level of business loan. Or (2) recipients agree to pay taxes at the 50% rate for a stipulated number of years, with the marginal difference in taxes going to repay the reparations fund. Years determined by number of years of training financed, or level of business loan. Note: This fund is intended to be a perpetual fund operant in all countries and regions of the world where slavery has left its scar. At the very least this fund should last the 300-400 years that

slavery, colonialism, racism, and racist oppression has been a part of our collective nightmares.

Conclusion: From Reparations to Social Justice

All heretofore programs, attempts, and policies to heal the racial rift created by the hyper exploitation associated with slavery, colonialism, racism, and racist oppression have provided little lasting remedies. These programs at best were misguided and at worst ill-conceived. Those which were misguided provided temporary relief but no lasting cures. Those which were ill conceived proved to increase the racial divide, aggravate the racist oppression or replace slavery and colonialism with segregated, dual labor markets. Many of the most successful programs, with their promises of equity, rarely achieved their intended goals. Alternatively, those which were successful merely served to muffle the negatives of differential access to education, training, economic and political resources. I would argue that at the heart of such “equity” programs, policies, and remedies is a basic flaw. Put simply — equity is only a goal for the dispossessed, the deprived, and the excluded, all others strive for freedom. Equality for the former becomes the ceiling of opportunity, whereas for the latter it becomes the floor.

Affirmative action, the most recent, attempt at equity provides a clear example of this basic flaw. Affirmative action, with its goal of providing equal access to such things as jobs, educational, and business opportunities — at the very best translates to some type of quota, percent, or portion of what is available. The goal then becomes to get one’s share of the affirmative action pie. While this provide limited progress during the aftermath of the 1960s, it was never intended to be anything more than an initial step toward the process of racial healing. Unfortunately, 40 years after its initiation, it is all that is on the table for far too many needs that go unmet. These unmet needs, experienced by the poor, the displaced, and the underserved majority of blacks, Hispanics, Native Americans, Asians, whites, and women who do not fit into the affirmative action slots are left out of the picture. Thus while a new, albeit shrinking, black, Hispanic, Asian, female, Native American middle class owes its very existence to affirmative action, the overwhelming majority of those trapped in poverty of these same groups find little relief. What is needed is not affirmative action but affirmative opportunity. Hence, the Social Justice Reparations program would provide opportunities — where freedom not equality is the goal.

Thus, an equal playing field is the beginning point for all — not some racialized elite or nonelite. This equal playing field, guaranteeing access to education, training, business loans, and development, allows unbridled freedom to take flight.

Notes

1. This is the figure arrived at by Du Bois in *Dusk of Dawn*, Genovese in *Roll, Jordan, Roll: The World that Slaves Built* comes to similar estimates. Some 5 million Africans died in the middle passage, while 5 million actually survived the journey. Of that 5 million, it is logical to assume 5 million direct offspring.
2. Regarding the European royalty the reader might find this of interests from the notes of "the Company of Royal Adventures to the King" as it was called:

Humbly represent that the trade of Africa is so necessary to England that the very being of the Plantations depends upon the supply of negro servants for their works. This trade was at the time of his Majesty's restoration managed by particular adventurers, who were so far from any possible design of having forts or asserting the honour of the nation that they were a constant prey to the Hollanders and were quite tired out of the trade by their great and frequent losses, of which they brought in clear proofs to the Court of Admiralty; so if his Majesty had not established a company the nation had probably by this time been quite driven out of it. The Company under the special management of the Duke of York sent out this last year above 160,000 . . . furnished all the Plantations with negro servants . . . employed above 40 ships, and doubt not they shall import very considerable quantities of gold and silver, as they have already begun. They have built forts and factories in Africa and repaired others, and have no European rivals but the Hollanders; but as to them, experience of the past gives just cause to apprehend what is intended for the future. For as the annexed extracts of letters prove, the Dutch have endeavoured to drive the English Company from the coast, have followed their ships from port to port, and hindered them coming nigh the shore to trade . . . have seized their boats and goods, violently taken possession of Cape Coast, and shot at his Majesty's Royal flag. To complete the former indignities, one Valckenburgh, Director-General of the West India Company in Africa, has sent a protest to their factors, in which he challenges the whole trade of Guinea as their propriety, by right of conquest from the Portuguese; of which having sought remedy by means of Sir George Downing the Company have received no satisfaction. In a word, notwithstanding a stock so considerable, and the many good ships of force and the land forces they have sent, had it not been for the countenance of some of his Majesty's ships, to give the Company a respect in the eyes of the natives and preserve their forts, the Company had ere this been stripped of their possessions and interest in Africa; Cormantin Castle itself being in extreme danger when the *Marmaduke* and *Speedwell* arrived there. The Dutch have sent a second protest, in which they say they will force the English from their forts if they do not quit them." (Donnan, E. 1965, 164-65)

3. Thomas Jefferson goes from the position of declaring that George III had:

waged cruel war against human nature itself, violating its most sacred rights of life and liberty in the persons of a distant people who never offended him, captivating and carrying them into slavery. (Jefferson 1776:1964)

to one where he justifies slavery in that:

they are inferior in the faculties of reason and imagination . . . (and) unfortunate difference of colour, and perhaps of faculty, is a powerful obstacle to the emancipation of these people. (Jefferson 1997:1829)

4. The legal record is replete with examples of this, but no clearer statement of the relationship between law, the government and slavery can be found than the 1804 opinion offered by Attorney General Levi Lincoln. In it he argues:

The slave was the property of his mistress, had no *will* of his own; was incapable of disposing of his time for a moment, of creating a right, or binding himself by any contract which he could make. If so, the whole matter of engagement must be considered as void; and the negro was so far from being the *hired servant for a month*, that he was, from his condition in society, incapable of becoming one at will. The service of a slave is secured by the government to his owner. He may be considered as in custody of the law, in the custody of his owner. This master, by law, has the same right to restrain, *reclaim*, and maintain the possession of him, that an officer has in reference to his prisoner; considered as property, as the goods and chattels of the owner, the reasoning is still stronger. (Lincoln 1801)

5. Freedom dues were variously defined in each state for example Maryland in 1715 required:

every man servant shall, at such time of expiration of his servitude as aforesaid, have allowed and given him one new hat, a good suit; that is to say, coat and breeches, either of kersey or broad cloth, one new shirt of white linen, one new pair of French fall shoes, and stockings, two hoes and one axe, and one gun of twenty shillings price Women servants received petticoats, aprons, caps, and, instead of a gun, "three barrels of Indian corn." For servants who did not receive their freedom dues or were subject to ill treatment, the statutes assured judicial redress. (Cited by Bilder 1996)

6. Source: Dumke 2003. There are several sources the reader may look to for further details regarding this. I suggest Randall Robinson 2000.

7. The 34 identified Sociological publications were:

(1) *Academy of Management Journal* 1963–98; (2) *Journal of the Academy of Management* 1958–1962; (3) *Academy of Management Review*, 1976–98; (4) *Administrative Science Quarterly*, 1956–2000; (5) *American Journal of Sociology*, 1895–2000; (6) *American Sociological Review*, 1936–2001; (7) *Annals of the American Academy of Political and Social Science*, 1890–1998; (8) *Annual Review of Sociology*, 1975–98; (9) *British Journal of Educational Studies*, 1952–98; (10) *British Journal of Sociology*, 1950–98; (11) *Comparative Studies in Society and History*, 1958–98; (12) *Contemporary Sociology*, 1972–2001; (13) *European Sociological Review*, 1985–98; (14) *Family Relations* 1980–99; *Family Coordinator* 1968–1979 *Family Life Coordinator* 1959–67 *Coordinator*, 1952–59; (15) *Gender and Society*, 1987–2000; (16) *Industrial and Labor Relations Review*, 1947–98; (17) *Journal of Black Studies*, 1970–2000; (18) *Journal of Health and Social Behavior*,

1967–2001 *Journal of Health and Human Behavior*, 1960–1966 *Journal of Human Resources*, 1966–2001; (19) *Journal of Marriage and the Family*, 1964–1999 *Marriage and Family Living*, 1941–63 *Living* 1939–1940; (20) *Journal of Modern African Studies*, 1963–98; (21) *Journal of Palestine Studies*, 1971–99; (22) *Law and Society Review*, 1966–2000; (23) *Middle East Report*, 1988–1998 *MERIP Middle East Report*, 1986–88 *MERIP Reports* 1971–85; (24) *Political Behavior* 1979–98; (25) *Public Opinion Quarterly*, 1937–99; (26) *Social Forces*, 1925–2000 (plus links to recent content 2001–2003) *Social Forces*, 1922–25; (27) *Social Problems*, 1953–99; (28) *Social Psychology Quarterly* 1979–2001 *Social Psychology*, 1978 *Sociometry*, 1937–77; (29) *Social Science History*, 1976–99; (30) *Sociological Forum*, 1986–98; (31) *Sociological Methodology*, 1969–2001; (32) *Sociological Theory*, 1983–2001; (33) *Sociology of Education* 1963–2001 *Journal of Educational Sociology* 1927–63 and (34) *Theory and Society* 1974–98. JSTOR search conducted on July 9, 2004.

8. This number would be 3 if we excluded the *Journal of Black Studies*, but what the heck, whose counting.

9. The political science journals and the years covered were:

(1) *American Journal of Comparative Law* 1952–2000; (2) *American Journal of International Law* 1907–2003; (3) *American Journal of Political Science* 1973–2002 *Midwest Journal of Political Science* 1957–1972; (4) *American Political Science Review* 1906–2000; (5) *Annals of the American Academy of Political and Social Science* 1890–1998; (6) *Asian Survey* 1961–1999 *Far Eastern Survey* 1935–1961 *Memorandum (Institute of Pacific Relations, American Council)* 1932–1934; (7) *British Journal of Political Science* 1971–98; (8) *Comparative Politics* 1968–1998; (9) *Foreign Policy* 1970–2000; (10) *International Affairs (Royal Institute of International Affairs 1944–)* 1944–98 *International Affairs Review Supplement* 1940–43 *International Affairs (Royal Institute of International Affairs 1931–39)* 1931–1939 *Journal of the Royal Institute of International Affairs* 1926–30 *Journal of the British Institute of International Affairs*, 1922–26; (11) *International Organization* 1947–98; (12) *International Security*, 1976–1999; (13) *International Studies Quarterly*, 1967–98 *Background*, 1962–1966 *Background on World Politics*, 1957–62; (14) *Journal of Conflict Resolution*, 1957–2000 *Conflict Resolution* 1957; (15) *Journal of Palestine Studies*, 1971–99; (16) *Journal of Peace Research*, 1964–2000; (17) *Journal of Politics* 1939–2000; (18) *Journal of Public Administration Research and Theory: J-PART*, 1991–98; (19) *Journal of Southern African Studies* 1974–2000; (20) *Law and Society Review* 1966–2000; (21) *Legislative Studies Quarterly* 1976–98; (22) *Mershon International Studies Review* 1994–1998; (23) *Middle East Report* 1988–98 *MERIP Middle East Report* 1986–88 *MERIP Reports* 1971–85; (24) *Modern Law Review* 1937–98; (25) *Political Behavior* 1979–98; (26) *Political Research Quarterly* 1993–2000 *Western Political Quarterly* 1948–92; (27) *Political Science Quarterly* 1886–1999; (28) *Political Theory* 1973–2000; (29) *Proceedings of the American Political Science Association* 1904–13; (30) *PS: Political Science and Politics* 1988–2000 *PS* 1968–87; (31) *Public Opinion Quarterly* 1937–99; (32) *Social Science History* 1976–99; (33) *World Politics* 1948–95 (plus links to recent content 1995–2003). Search conducted on JSTOR on July 9, 2004.

10 The African American or African Studies Journals and the years the collection cover were:

African American Studies — 8 journals

(1) *African American Review* 1992-2000 *Black American Literature Forum* 1976-91 *Negro American Literature Forum* 1967-76; (2) *Callaloo* 1976-94 (plus links to recent content 1995-2003) (3) *Journal of Black Studies* 1970-2000; (4) *Journal of Blacks in Higher Education* 1993-2001; (5) *Journal of Negro Education* 1932-98; (6) *Journal of Negro History* 1916-2000 (7) *Phylon* (1960-) 1960-87 *Phylon Quarterly* 1957-59 *Phylon* (1940-56) 1940-56; (8) *Transition* 1961-99 (plus links to recent content 2000-2001).

African Studies — 13 journals

(1) *African Affairs* 1944-98 *Journal of the Royal African Society* 1901-44; (2) *African Languages and Cultures. Supplement* 1992-96; (3) *African Studies Review* 1970-2000 *African Studies Bulletin* 1958-69; (4) *ASA Review of Books* 1975-80; (5) *Bulletin of the School of Oriental and African Studies, University of London* 1940-98 *Bulletin of the School of Oriental Studies, University of London* 1917-40; (6) *Canadian Journal of African Studies* 1967-98 *Bulletin of African Studies in Canada* 1963-66; (7) *International Journal of African Historical Studies* 1972-2000 *African Historical Studies* 1968-71; (8) *Journal of African Cultural Studies* 1998-2000 *African Languages and Cultures* 1988-97; (9) *Journal of African History* 1960-98; (10) *Journal of African Law* 1957-98; (11) *Journal of Modern African Studies* 1963-98; (12) *Journal of Southern African Studies* 1974-2000; (13) *Transition* 1961-99 (plus links to recent content 2000-2001. Search conducted on JSTOR on July 10, 2004.

11. Note that the classic account of this is located at <<http://holmes.lib.muohio.edu/search/aRodney%2C+Walter/arodney+walter/-2,-1,0,B/browse>> See Walter Rodney's *How Europe Underdeveloped Africa* (1974), Howard University Press.

12. I take objection to the specific use of this term by West in *Race Matters*. See my argument later in this section.

13. My estimate is a simple calculation based upon the 12-15 million original slaves and their immediate descendants. This estimate is a simple function of multiplying this sum by 100,000 x 12-15 million. At this point, some may even argue, given today's standards if a human life is worth this. But, I am also suggesting pain and suffering, gross and criminal negligence, conspiracy, unjustified imprisonment, loss of wages, defamation of character, genocide, rape, and false imprisonment (to name but a few). In the scheme of things numbers are just that numbers, they are meaningless until the principle of reparations as social justice is accepted. I, not being a lawyer or an economists, pick this as a convenient way of conceptualizing the magnitude of both the tragedy (past) and ongoing tragedies (present) that these funds would be utilized to (re)address. Since the recent United Nations conference on reparations, and other leading scholars come to similar results, I do not believe that my estimates are that out of line. Again, right now, for the sake of this essay, the figure is irrelevant (it could conceivable be put at \$1, although doing such would trivialize what western imperialism has already sought to minimize to nonexistence.). What is relevant is the legitimacy of the claim for justice.

14. Is it not strange, when we want to do something damn the cost, full speed ahead. But when we want to avoid doing something, we get bogged down with the cost. If you needed a heart transplant, in order to live, what price would you pay? Reparations are much like a social heart transplant, without which the social organism may just collapse.

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Book Reviews

Moral, Believing Animals: Human Personhood and Culture.

By Christian Smith. Oxford University Press, 2003. 164 pp. Cloth, \$22.00.

Reviewer: KELLY BESECKE, *Kenyon College*

This book was a joy to read. What Philip Smith has called the “new American cultural sociology” truly picked up pace during the 1990s, but it is only in the past two or three years that scholars have begun to produce broad statements addressing fundamental questions such as: What is cultural sociology? What is an appropriate definition of culture for sociologists? How does culture interact with other fundamental dimensions of social life, like individuals and institutions? And, in the case of *Moral, Believing Animals*, What is it about human nature that makes culture such a sociologically powerful concept?

The book’s core argument is that human beings are inherently moral, believing animals, and each chapter explores a dimension or implication of this idea. Smith’s main concern is with motivations for action: why do people do what they do? In arguing that we are *moral* animals, he is saying that one of our central motivations is to act out and sustain moral order; that institutions and cultural systems at the macro level, and actions and practices at the micro level, are all moral in that they are all oriented toward assorted assumptions about the right, the good, the worthy, the just. In arguing that we are *believing* animals, he is reminding us that all our knowledge relies ultimately on what philosophers might call “first principles,” that is, on foundational assumptions that provide the grounds of verification for knowledge, but that cannot themselves be proven or verified. Smith points out, for example, that much of modern life (and modern sociology) depends on unverifiable assumptions associated with liberal democratic capitalism, such as the assumption that people are, at root, materially oriented goal seekers. This assumption is so pervasive and (for people living in a capitalist moral order) so comfortable that explanations that use it seem somehow immediately compelling and satisfying, and explanations that do not seem somehow insufficient, suspect, or naïve.

Smith develops several implications of his moral model of human nature. He argues, first, that as moral, believing animals, people are also storytellers, or as he says, narrators; that contrary to claims of assorted modernists and postmodernists, narrative is still fundamental to human life. Second, he addresses two fundamental questions in the theory of religion. What is religion, and why are people religious? Smith’s definition of *religion* draws on and resonates with many previous definitions,

while also attempting greater accuracy and more brevity than previous definitions. He defines religions as “sets of beliefs, symbols, and practices about the reality of superempirical orders that make claims to organize and guide human life.” In light of his previous arguments, this definition lends insight into both secularization and religious persistence.

Smith advocates a theory — or rather, two theories — of religious origins, both meant to dispel sociobiological and rational choice counterparts. His first theory is, as he says, supremely parsimonious, but also highly suspect within our modern academic narrative: maybe religions have always existed so pervasively because some superempirical order actually exists. A serendipitous page break leads the reader to suspect that Smith is going to stop there. He goes on, however, to articulate a second theory that is, as he says, accessible to a broader audience, and has the added advantages of being a standard among certain philosophers and theologians, as well as resonating with cultural theory and with the anthropology that Smith has laid out. Simply put: as many cultural theorists have noted, meaning depends on context; all things are only interpretable within a context. To get at the meanings of broad existential events like life, love, suffering, and death, as well as history and the passage of time, we need a context that transcends our ordinary social-historical horizons. Religions offer the superempirical context within which we can grapple with the big questions.

By laying out a morally centered understanding of human nature, Smith has a twofold mission, possibly conceivable in terms of a two-by-two table: On one hand, we have a whole host of what Smith calls “mainstream” (what might otherwise be called “hegemonic”) sociological research that relies on a concept of human beings as rational actors who are oriented towards finding the best means to achieve certain (usually utilitarian) ends. On the other hand, we have a growing cultural sociology, that has not yet articulated the assumptions it makes about the motivations for action. Furthermore, Smith argues, some scholarship on culture seems to implicitly assume a rational actor model by default. The problem with this is that rational actor theory is not very good at making sense of much of human action, and particularly not of normatively oriented action. By contrast, a conception of people as inherently morally oriented offers cultural analysis much more explanatory and interpretive power, and at the same time, offers an alternative to the rational actor paradigm.

Moral, Believing Animals aims to speak both to specialists in the areas of culture, religion, and theory, and to sociologists more generally, and will perhaps serve different purposes and raise different questions for each audience. His message for sociology as a discipline is about the sociological inadequacy of rational choice theory as a pervading assumption about human nature; he offers his moral model as a superior alternative. How might we try this model? How might it advance our work? What might we lose with this model of human nature? What other models of human nature might we consider, beyond these two? These are the questions I hope the book will raise for the discipline. For me as a specialist, Smith’s argument

provoked questions such as: Are humans truly morally oriented in some presocial sense, or is it, à la Durkheim, our social nature that makes us moral? Is *believing* too cognitive, too closure-oriented a word to describe the working assumptions we are always making about the nature of our reality? Would language from pragmatism or reflexivity theory refine this idea? How about “moral” — what is the difference between a moral animal and a meaning-making animal, and what difference might that make for the theory? The depth of the questions it inspires is a measure of the quality and timeliness of the book.

The Commercialization of Intimate Life: Notes from Home and Work.

By Arlie Russell Hochschild. University of California Press. 2003. 313 pp. Cloth, \$49.95; paper, \$16.95.

Reviewer: DAVID D. FRANKS, *Virginia Commonwealth University*

This book concerns corporate capitalism’s encroachment on personal life, especially caring within the family. This is not a good mix. For example, the time crunch of work increasingly forces us to pay others for the personal services once conducted by mothers and fathers. These services include birthday party planners, kiddy taxi services, holiday decorating, technologies for spying on baby sitters. “As the family becomes more minimal it turns to the market to add what it needs and by doing so becomes yet more minimal.” The author’s reminder that love and caring are nonetheless the “very basis of any social life” underscores the urgency of this encroachment.

This is not the usual edited volume. It is a collection of self-contained works published over the past 25 years by the author. Since the chapters are self-sufficient, the author recommends browsing them piecemeal, which explains some admitted redundancies. Since they were not originally published with an integrated book in mind, the essays sometimes fit only loosely within the parts. Taken individually, the collections are unusually well written, insightful contributions to sociology. This is first-rate work.

These essays will be of interest to working women committed to succeeding in a man’s world of business and maintaining a family at home. They should also be relevant to feminists and to those interested in globalization, policy making and social problems. Hochschild’s essays consistently answer C. Wright Mill’s call to translate private ills up to their sources in broader social arrangements.

In part 1, “The Culture of Divestment,” self-help books are used as a barometer of cultural shifts paralleling the ironical changes from Protestantism to Capitalism described by Max Weber. He traced how religious ideas “jumped the churchyard fence to land in the market place.” Hochschild suggests that the popularized version of feminism in self-books has jumped a similarly ironical fence from a social movement humanizing women to one buttressing a commercial dehumanizing

of intimate life. Cultural prescriptions for “taking care of number one” focus more on the emotional dangers of love than its benefits. A “no-needs” me relates to a “no-needs” you. Women are advised to spend their nurturance in the spirit of a shrewd market councilor getting the most for ones guarded expenditure. To the author this amounts to an abduction of feminism. “Instead of humanizing men we are capitalizing women.” Throughout the book Hochschild shows how equalitarian women are becoming more like men. Care and nurturance fall into a black hole.

Hochschild borrows from cultural historians to show how women have adapted the myth of the self-reliant, uncommitted cowboy, free to ride where ever he wanted. For women this “range” has been replaced by the simulated open space of commodities.

The essays in part 2 originally broke ground for a sociology of emotion that recognizes affect’s critical contribution to rational thought as well as their responsiveness to a degree of human manipulation through “deep acting.” Shared “feeling rules” concerning how we *ought* to feel guide the personal management of emotions (“emotion work”) pulling them into some degree of normative conformity.

In “The Economy of Gratitude,” Hochschild describes how increases in female employment and the unchanging male role result in marital conflict. The author focuses on intimate “gifts from the heart.” A gift is something extra. But an invisible cultural “exchange rate” exists determining that the powerful have to do less than others to receive the same gratitude. The male thinks he is doing “extra” by helping out some with “women’s work” and the wife thinks he’s not doing enough. (He’s not.) The husband expects gratitude and the exhausted woman cannot feel it. This classic chapter formed the kernel for her internationally acclaimed book, *The Second Shift* (1989).

Part 3, “The Referred Pains of a Troubled Society,” has most to do with larger structural changes in corporate capitalism. Essays deal with the human pain that is transferred to the powerless, i.e., mothers and children. Corporate capitalism’s lay-offs and increasing demands on worker’s time destabilizes families. (Corporate America now demands longer work hours than any other nation.)

The author also discusses how divorced men typically have “phantom relationships” with offspring, placing their photos on their desks and feeling they can always call if they want. But the children know better. One essay deals with the ways that colonized people internalize the values of colonialism and how Hindu mothers harshly enforce its rules on daughters — another example of how the dominated cooperate wholeheartedly to ensure their subjugation. Another essay includes a cross-cultural analysis of governmental supports to family life with concluding policy implications.

Part 4 is called “The Ecology of Care.” The first essay points to the “globalization of immigrations” as mothers from impoverished countries feel compelled to leave their own children in order to care for others in wealthier lands where both parents work. They send needed money home, but their own children lack care and suffer

accordingly. Instead of extracting gold from colonies, we extract care and love from them. In another chapter workers were reluctant to take needed paid parental leaves. Again, we are up against the *culture* of capitalism; employees were justifiably afraid of being seen as uncommitted workers. The workplace was also where some employees felt most competent, most relaxed, and most like their “real selves.” “Work had become to feel like home and home more like work.”

In the last chapter Hochschild details academia’s insistence that women adopt the role and time frames of exclusively career-oriented males. She then describes her own creative efforts at being a mother to her infants and succeeding in the man’s world at Berkeley. Here as in other essays she gives testimony to Turner’s insistence that social roles are *made*, not simply enacted. It is an inspiring ending.

Europe without Borders: Remapping Territory, Citizenship, and Identity in a Transnational Age.

Edited by Mabel Berezin and Martin Schain. Johns Hopkins University Press. 319 pp. Cloth, \$49.95; paper, \$19.95.

Reviewer: ADRIAN FAVELL, *University of California, Los Angeles*

Sociological books about European integration are few and far between. Precious few American sociologists, in this most American-centric of disciplines, have really grappled with the fundamental changes afoot in European societies as a result of the European Union (EU). Political scientists and geographers have made a better show of it, and we should thus welcome this new, polished volume from Johns Hopkins Press, that brings together high quality contributors on this subject from all three disciplines. The European Union is transforming Europe in ways that do not map well onto the typical U.S.-centered notions of modernity that still guide most reflection on society in the twenty-first century. The EU is not a United States of Europe in the making; nor is it only a thin bureaucratic overlay for national societies that retain self-contained autonomy. In fact, EU member states in the postwar period have fashioned a unified economic space that manages to break down barriers to free movement of all kinds, while preserving much of the patchwork of local and national cultures that gives Europe its richest resources. Political integration has followed economic imperatives, but has created a complex structure of multileveled governance, not a new state. Nations have calmly given over sovereignty to a new common currency (the euro), while jealously guarding the national public spheres of culture and media. Immigration, and globalization more generally, have changed the continent too, but the model of society emerging within the new pan-European institutional framework is one whose accent on welfare and social rights, redistribution, human rights, and freedom of information, language use, and cultural diversity, not to mention diplomacy rather than war, is going to differ quite dramatically from the flattening, all triumphant version of

American neoliberal capitalism, often assumed to be the world's only viable political blueprint.

These big political economy questions should be the ones that most jump out in a book about Europe beyond borders, but they are covered only partially in this otherwise interesting volume. Mabel Berezin's congenial introduction sets the tone for a volume that is essayistic in style, more concerned with conceptual issues than presenting evidence, and that leans towards cultural rather than institutional or economic analysis. Berezin brings the notion of territory upfront, rightly, as one of the aspects of European society that has fundamentally changed. We can no longer speak of European societies as if they were self-contained, territorially unambiguous nation-state-societies alone in the way that we routinely speak about social processes in the U.S. European societies are now multileveled, nested, blurred national entities in the sense that the social formations within them are now as likely to transcend conventional notions of political boundaries as fall neatly within them. It is these boundaries — which have hitherto almost exclusively defined the personal identities of modern citizens — that can no longer be assumed. Berezin sees the changes as operating on both a cognitive and emotional level. Europeans today are thus presumably more likely to imagine their personal future on a broader cross-regional, pan-European, or even global scale, and they are less likely to root core emotional attachment and identity in the home nation (or region) of yore. Or, at the very least, Europeans are more likely to vary on this dimension, according to class, education, social opportunity, and other classical sociological indicators. As some become more cosmopolitan, others less privileged retreat into xenophobic local attitudes. Berezin's ideas here are suggestive, rather than empirically proven, but they do point towards fundamental dynamics afoot. Talk of emotion, meanwhile, raises the point that one hidden motor of European integration has been the sense of transnational romance and adventure that many young Europeans have embraced as the most tangible, personal fruit of living their lives on a European scale. It is remarkable how, among, for example, so many young German and Spanish couples, or French-German combinations, these romances rapidly transform north-south or east-west cultural barriers to understanding.

Other highlights in a consistently strong volume include a historical reflection on the idea of Europe by Krishan Kumar, samples of excellent recent empirical studies by Juan Díez-Medrano (about attitudes to Europe in Spain, Germany and the U.K.) and ethnographer Levent Soysal (on migrant youth cultures in multicultural Berlin), and a typically eloquent reflection by Craig Calhoun on the difficulties of creating a European media space. There are also chapters by Riva Kastoryano, J. Nicholas Entrikin, and Roland Axtmann.

The book fails, however, to deliver on one of its promises: to bring spatial analysis into the sociology of Europe. An eclectic collection is always unlikely to develop a coherent methodology, but it is striking how much of the discussion, which gestures throughout towards space, fails to really rethink typical sociological issues in spatial terms. John Agnew critiques notions of sovereignty and the state,

which have led us to misunderstand the nested identity process of regional movements such as the *Lega Nord*, but is caught up with discussing the distinctly un-spatial notion of (sociological) identity. Others, such as Calhoun, admit that their notion of space (in the public sphere) is wholly virtual and metaphorical. Berezin's introduction also raises the notion, but centers still on literature such as that on citizenship and the extreme right which have contributed little to spatial analysis. Only the taster of agent-based modeling by Roy Eidelson and Ian Lustick, and Neil Brenner's piece on the new scale of European governance, really grapple with spatial dynamics directly. Math does indeed offer clues to the broader dynamics of scale and identity formation, fleshed out in Brenner's analysis of regional governance agencies that have emerged within the integrating Europe. The challenge will be to fill out these breathtakingly macro, and often highly functionalist, frameworks, with more human-centered empirical research, that actually shows how these processes play out at local, urban levels and in the choices and life courses of European citizens.

On this score, the volume offers a tantalizing but ultimately unfulfilling meal. It will be an excellent first source book for all readers wanting to acquaint themselves with the literature (the bibliography is particularly good). Those looking for more political economy type analyses, however, ought to start with the work of Neil Fligstein, Andres Rodríguez-Pose, or Wolfgang Streeck, or indeed head back to the more comprehensive work of European sociologists, such as Göran Therborn and Colin Crouch. As this volume amply suggests, interesting work is still awaited on the emerging subject of a European without borders; but these remain to be written.

America's Newcomers and the Dynamics of Diversity.

By Frank D. Bean and Gillian Stevens. 2003. Russell Sage Foundation. Cloth, \$32.50.

Reviewer: IRENE BLOEMRAAD, *University of California, Berkeley*

In *America's Newcomers and the Dynamics of Diversity*, Bean and Stevens set an ambitious agenda, asking who America's newcomers are, how they are integrating economically and socially, and what effects they have on those already in the U.S. They seek answers by summarizing and synthesizing the theoretical and empirical research done to date and offering some new data analysis, largely drawn from U.S. Census and Current Population Survey statistics. Part of the ASA Rose Series, the book targets academics and those involved in public policy. It covers a lot of ground and would serve as a valuable introduction to the field of immigration or a comprehensive overview for long-time students of migration.

America's Newcomers devotes two chapters to a brief overview of migration theories, changing U.S. immigration law and the demographic shift of immigration — notably the overwhelming move to migration from Asia and Latin America.

The authors also present an extended discussion of Mexican migration, which they argue requires special attention. Two main points stand out, themes that are repeated and developed throughout the book. First, migration is fundamentally changing the ethnoracial composition of the U.S. such that we can no longer talk about race as a black/white divide. Second, migrants benefit the U.S. by contributing to demographic growth and filling jobs. The authors note that with the exception of the recession in the late 1980s and early 1990s, job growth continuously outpaced migration inflows, suggesting that the U.S. needs newcomers.

The bulk of the book, chapters 4 through 8, investigates various measures of assimilation, where “assimilation means convergence of newcomer and host groups, with each affecting the other.” Bean and Stevens consider immigrant welfare use, economic incorporation (mainly educational achievement and earnings), acquisition and adoption of English, and patterns of intermarriage. The authors conclude that immigrants are integrating in ways similar to the early twentieth century Europeans. Within two or three generations, educational attainment, earnings and English language use largely resemble the white population, the benchmark Bean and Stevens use to measure incorporation. Latinos are the one exception, in particular Latino men and those of Mexican origin. Bean and Stevens contend, however, that assimilation is mostly a matter of time, probably needing an extra generation or two. Since these groups constitute a large chunk of the undocumented population, they start from a more disadvantaged position.

The welfare chapter, written with Jennifer Van Hook, is particularly thought provoking. The authors blend a sensitivity to how methodological choices shape research findings — choices as basic as whether to use the household or individual as the unit of analysis — with a careful consideration of policy implications. They dispute arguments of welfare dependence among immigrants and the contention that American welfare provisions act as a “welfare magnet.” They show that legal immigrants’ use of welfare is not substantially different than that of the native-born population. Refugees, particularly elderly refugees, have relatively high receipt of cash benefits, while refugees and groups with a high percentage of undocumented individuals receive more noncash assistance. The authors argue that changes to formal admissions criteria — advocated by some — would do little to affect welfare receipts. Refugee policy is grounded in humanitarian concerns and illegal migration is outside formal policy. Instead, the best way to avoid welfare use would be through employment programs targeting low-skilled immigrants.

Chapters 9 and 10 bring home the main themes of the book by considering how immigration affects American residents. Bean and Stevens separate out what they see as Americans’ twin concerns over immigration: worry about the economic impact of foreign arrivals and concern over immigrants’ effect on sociocultural identity. They conclude that, on the whole, immigration is beneficial in both domains.

The authors provide a nuanced reading of economic data, pointing out that the consequences of immigration are far from uniform. The aggregate economic and

labor market effects of immigration appear positive, though small. However, individuals and areas possessing more capital and skills benefit most, while less-skilled individuals, especially African Americans and earlier immigrant arrivals, might experience negative pressure on wages and greater job competition. Immigrants' fiscal impact appears negative in the short-run (mostly since immigrant children put a strain on school systems), but positive over the long-term. Yet since state and local governments provide many services used by immigrants, fiscal repercussions fall heavier on them, while the federal government reaps significant tax gains. Bean and Stevens also flag two topics that they rightly note have received scant attention: the impact of high-skilled workers on the labor market, and the possibility of important gender differences in labor market effects due to women's differing migration patterns and greater occupational concentration.

The discussion of immigration's social-cultural impact produces one of the book's more provocative arguments. Bean and Stevens contend that the presence and actions of immigrants undermine America's traditional black/white color line. In a chapter with Jennifer Lee, they argue that literatures of racialization, built on the African American experience, cannot be transferred to immigrants. Pointing to evidence of much higher interracial marriage and multiracial identity for Asians and Latinos, as compared to blacks, the authors suggest that divisions between whites and others are becoming blurred, but that the U.S. might be moving to a new black/nonblack racial divide. A troubling indicator of their argument is evidence that foreign-born whites and blacks are more likely to enter into a mixed race marriage than native-born whites or blacks. Conversely, Asians and Latinos, who largely engage in endogamy in the immigrant generation, exhibit very high intermarriage rates in the second and subsequent generations. We are left to wonder how the children of foreign whites and blacks "learn" endogamy once in the U.S., while the children of Latinos and Asians do the opposite.

Given these findings, Bean and Stevens (in collaboration with Susan Wierzbicki) question recent theorizing on segmented assimilation, contending that it over-reifies the negative consequence of race. The authors do not believe race is unimportant, but rather that racial categories are in greater flux than current theorizing recognizes, and that racialization must be understood in interaction with socioeconomic status.

America's Newcomers is rich in detail and nuance, but there are also some silences. The authors bracket the subject of transnationalism and leave aside political incorporation, a relatively understudied phenomenon. These omissions can be forgiven, given the comprehensiveness of the rest, though one wonders how transnationalism and political integration might influence the individual and societal outcomes they study. There is also relatively little about border control, despite the book's policy orientation and the introduction's framing of immigration in the context of the terrorist attacks of September 11, 2001. The authors rightly note that border control has inordinately dominated American policy discussions,

but given findings about the comparative disadvantage of undocumented groups, the question of illegal migration remains crucial. Finally, I would have liked to read a bit more about how other social and public policies, not explicitly immigrant in focus, shape integration outcomes. Segmented assimilation identifies the constraining influence of economic and racial structures, subjects Bean and Stevens address skillfully, but it also highlights the negative effects of residential segregation given underfunding of public institutions, such as schools, in areas with high concentrations of minorities. Since, as Bean and Stevens demonstrate, education is critical to strong earnings, English acquisition, and intermarriage, how does the configuration of American government and local school funding affect immigrant integration?

Crossing the Great Divide: Worker Risk, Uncertainty and Opportunity in the New Economy.

By Vicki Smith. ILR Press, 2001. Paper, \$21.95.

Reviewer: STEVEN H. LOPEZ, *Ohio State University*

The 1990s were an amalgam of seemingly contradictory trends. Unemployment was low, the economy grew steadily, and corporate profits were fat, yet employers downsized, outsourced, and reorganized themselves to a new brand of flexibility that means permanent employment insecurity for millions. Meanwhile, real wages declined or were stagnant (except for a brief moment in the late 1990s) for the bottom three-quarters of the work force. In place of the old bargain, which offered large numbers of American workers long-term employment stability and living wages in exchange for their commitment and loyalty to the firm, workers are now expected to assume greater risks and take more responsibility, often for less money and without long-term guarantees.

What is puzzling about all this, Vicki Smith notes in *Crossing the Great Divide*, is that workers more or less went along with it — even, at times, embracing change. Smith seeks to explain why through an examination of how four groups of workers — drawn from case studies of firms in three industries and a self-help group for unemployed professional workers — attempt to navigate the transition from the old era to the new.

At Reproco, workers earning \$15,000 to \$20,000 per year provide on-site mail-room and photocopying services to client firms — lawyers in a large Philadelphia law firm and engineers in a nuclear power plant. They flexibly coordinate and self-manage their work, resolving problems and dealing with “customers.” Risk and uncertainty abound: they have little power vis-à-vis their clients, can be reassigned to another site at a moment’s notice, enjoy few opportunities for advancement, and what little security they have is founded on the corporate strategy of the moment: outsourcing of core jobs from the firms they serve. Yet, Smith argues,

these jobs offer real opportunities. For workers with limited work experience and educational background, Reproco is better than the available alternatives and interactions with clients allow development of cultural capital in the form of self-confidence and communication skills.

WoodWorks has a log yard, a plywood factory, a stud mill, a saw mill, a finger-joint plant, and a planar all located at Madison, Montana. The company's new "participatory management" (PM) program was introduced to make these operations more competitive. Here the risks are structural: in a time of vanishing timber resources and corporate restructuring, these unionized workers' jobs are under threat. As a result, Smith finds many Woodworks employees willing to give the involvement program a chance, participating in problem-solving "task forces." Smith argues that despite coercive aspects, workers participate in the new arrangements not only because they hope to keep their jobs, but also because they welcome opportunities to use their brains as well as their bodies at work. Also, like Reproco workers, those at Woodworks benefit from opportunities to learn new competencies. (However, when Smith returns in 1999 she finds everything gone but the plywood factory, even though all but the log-yard workers actively participated in the PM program.)

Comptech, a major computer manufacturer in California, offers its permanent employees generous benefits and relative security, but also flexibly deploys large numbers of temps, paid slightly more than minimum wage. Smith finds Comptech temps, identifiable by their purple badges, working enthusiastically and collaboratively alongside permanent workers, hoping to use these positions as a springboard to permanent status. This carrot guarantees worker consent and self-discipline, even though only 10 to 15 percent of temp workers ever make it to permanent status. Still, Smith argues that most temps derive significant advantages, such as personal dignity, relatively pleasant working conditions, and status stemming from their association with the prestigious Comptech name.

Experience Unlimited (EU), a job club for unemployed professional workers in Sacramento, California, provides resources and training to facilitate job searching. Despite extensive efforts at "reinventing the self," however, very few members of EU actually land new permanent, professional positions. Smith reports that while these workers view the causes of their joblessness as structural, they individualize the reasons for their failure to cope with the changing labor market, viewing the issue in terms of their own personal shortcomings.

This is an engagingly written and interesting book, but I do have some criticisms. In the interests of space I will mention just one: the bigger picture here is that the workers she studied are poor (Reproco, Comptech) or about to become poor (Woodworks, EU). The positive aspects of the jobs she studies, combined with absence of better alternatives, may help explain why collective resistance to these changes has been muted. However, Smith's conclusion that new-economy jobs like those at Reproco or Comptech "defy categorization" as bad jobs fails to grapple with the reality of working poverty and the incomprehensible difficulty of raising a family

on \$15,000 a year. Given that Smith herself emphasizes the importance of extra-organizational context, I was surprised that she was not more curious about how such workers live.

Reorganizing the Rustbelt: An Inside Study of the American Labor Movement.

By Steven Henry Lopez. University of California Press, 2004. 292 pp. Cloth, \$55.00; paper, \$21.95.

Reviewer: HOWARD KIMELDORF, *University of Michigan*

American unionism has been swimming against the tides for much of the last half century, bucking wave after wave of economic restructuring, capital flight, and mounting judicial and political hostility. And yet, as we know, the main flow of history often conceals beneath its opaque surface surprising countercurrents that are only visible to those who are bold enough to dive in with eyes wide open. Thankfully, Steven Lopez has taken the plunge into those uncharted waters, emerging with a rich and revealing ethnographic account of recent efforts to rebuild a viable union movement in the heart of the nation's rustbelt.

Reorganizing the Rust Belt is structured around an imaginative and powerful comparison of three pairs of union mobilizing efforts carried out by the Service Employees International Union (SEIU) among low wage nursing home workers in western Pennsylvania. In each matched pair, which are distinguished by the geographic scope of organizing, Lopez seeks to explain why one case was more successful than the other. Drawing primarily on his two-plus years in the field as a union intern, and supplemented by extensive interviews with other organizers, rank-and-file workers, and archival materials, his goal is to lay bare the conditions that both facilitate and impede successful worker mobilization. While attentive to the wider socioeconomic environment, Lopez's explanatory framework focuses on the lived experiences and understandings of Pennsylvania's health care workers who from 1995 to 1998 were asked to choose sides in the escalating conflict between the SEIU and employers.

Lopez begins his analysis at the local level by comparing a failed and successful effort to organize the same nursing home over a two-year period. The first attempt, carried out in 1997, resulted in a narrow defeat for the union. Little more than a year later, however, the same Local won recognition by more than a two-to-one margin. Lopez attributes this dramatic turnaround to a tactical shift, in particular the Local's decision in 1998 to wage more of a grassroots campaign that proved more effective at tapping into existing worker networks, framing the case for unionization, and mobilizing the rank and file. But Lopez does not stop there, for he is primarily concerned with analyzing how networks, framing, and mobilization — the standard stuff of social movement research — are understood and acted

upon by ordinary workers. Thus, he argues that the key to success in 1998 was not simply using networks, framing the union's position, or even mobilizing supporters, but rather deploying each of these "resources" in ways that successfully challenged the deeply engrained anti-union sentiments that barely a year earlier led a majority of workers to reject unionization.

Widening the analysis from the workplace to the union itself, Lopez next examines how a single SEIU Local attempted to construct solidarity across multiple work sites. Once again, he takes full advantage of his comparative design, contrasting a highly successful mobilization in which union and community supporters joined forces in 1996 under the banner of quality health care to resist privatization of four public-sector nursing homes, with a much more limited mobilization a year later to secure a first contract in which union leaders took the lead in "servicing" a generally passive membership. Lopez argues convincingly that the deeper and broader mobilization against privatization was largely a consequence of the Local's ability to construct the struggle around the broader and more compelling theme of social justice, rather than union rights. In this way, the struggle against privatization elicited support far and wide from nursing home workers, residents and their families, religious leaders, and savvy politicians, whereas the campaign for a first contract was construed more narrowly as a union issue, and to that extent reinforced the traditional practice of business unionism in which leaders collect dues in exchange for various services like negotiating contracts.

The last paired comparison extends the analysis to the regional level where Lopez examines how unions have tried to overcome the well-documented employer offensive against organized labor. Rather than adding to the already lengthy laundry list of conditions associated with organizing success or failure in the presently hostile environment, Lopez explores creative ways for neutralizing employer intransigence, reminding us that the task facing unions — and indeed their only hope — is to build sufficient solidarity to overcome even the stiffest opposition, as the SEIU attempted to do in two separate campaigns in 1995 and 1996 while fighting for a first contract against a powerful nursing home corporation intent on breaking the union. Just as employers have gained the upper hand by provoking unions into often unwinnable strikes against concessions, unions, Lopez shows, can take strategic actions of their own that can draw out employers, leading them to engage in openly illegal actions that ultimately discredit them in the eyes of the public and workers alike. Strategically flexible and creative unions can thus seize the advantage by preying upon what has been capital's main weapon: its unbridled hubris and resulting assault on the labor's very right to exist.

Reorganizing the Rust Belt is a model of participatory observer research, at once clearly partisan in its commitments and yet refreshingly sober, even detached, in its analyses and conclusions. It is a story that could only be told by someone who has actually been in the trenches. But Lopez does more than offer a foot soldier's view of class warfare, however illuminating. He also draws out important theoretical lessons for students of social movements, pointing out along the way that, while

labor may be drowning, there are plenty of life rafts within reach if only union organizers and workers can find the courage and creativity to board them.

Downsizing in America: Reality, Causes, and Consequences.

By William J. Baumol, Alan S. Blinder, and Edward N. Wolff. Russell Sage Foundation, 2003. 321 pp. Cloth, \$29.95.

Reviewer: CHARLES KOEBER, *Wichita State University*

In this comprehensive study of 1980s' and 1990s' downsizing, economists Alan Baumol, Alan Blinder, and Edward Wolff pursue the answers to three main research questions. First, they attempt to clarify to what extent firms reduced the size of their work forces. The authors argue that much of what ostensibly appeared as downsizing was, in reality, a "regression toward the mean": larger firms and firms in shrinking industries downsized and smaller firms and firms in growing industries upsized. For instance, while downsizing occurred in large manufacturing firms, smaller retail and service firms experienced upsizing. Also, they argue that many have conflated downsizing with the "churning" of labor that occurs with the restructuring of a firm. While restructuring firms fire some types of workers, they hire others. Subsequently, the size of their overall work forces do not contract, and may even increase (upsized) over time.

The second research question explores the consequences of downsizing. The authors bust some popular managerial myths. They argue that downsizing was not an effective strategy to increase competitiveness, nor did it improve productivity. Downsizing did increase profitability by virtue of reducing the cost of labor and "squeezing" savings in wages into profits. However, these profits did not translate into higher stock prices, as stock prices of downsizing firms tended to fall. Unfortunately, with regard to consequences for workers, rather than busting myths, the findings reinforce the reality of what many of the downsized already know: downsizing, restructuring, and churning all added up to increased turbulence in the labor market. Workers changed jobs and industries substantially more often than in the past.

The third research question addresses the factors that influenced firms to downsize. Here the authors make their most important contribution to the literature, as studies of the causes of job displacement are lacking. To examine these influences the authors test six interrelated hypotheses:

1. Downsizing occurred because technological change favored smaller enterprises.
2. Faster innovation led to more labor market churning.
3. Foreign competition compelled domestic industry to downsize by trimming "fat."

4. Downsizing occurred when capital was substituted for labor.
5. Downsizing was a consequence of the breakdown of the social contract between labor and capital.
6. Downsizing amounted to the “blue-collarization” (deskilling and displacement) of white-collar labor.

The results of the hypothesis testing are insightful. Although fluctuations in product demand influenced downsizing during the short-term, efficiency in production was more important over the long-term. This efficiency was largely influenced by technology, the operation of which sometimes required firms to adjust their workforces to become either smaller or larger. The authors found no evidence for a unidirectional trend in which capital was substituted for labor. They did find that firms that competed with imports downsized more than firms that did not compete with imports. Limited support was found for the hypothesis that downsizing was an outcome of the breakdown of the social contract. The authors found no support for the last hypothesis, as the ratio of managers to workers increased in downsizing firms and lower-level blue-collar workers bore the brunt of downsizing.

Downsizing in America provides new and useful information. It also reveals, however, some problems that can occur when attempting to construct an objective and scientific term out of something (downsizing) that is subjective and corporeal. In their attempts to capture and set forth the essential meaning of the term *downsizing*, the authors assign an overly narrow definition which tends to view downsizing as a permanent reduction in the size of a firm's work force. As a result, econometric discussions of firm size sometimes tend to overshadow the social relevance of downsizing. Downsizing should not be reduced to or conflated with a reduction in firm size. Rather, it is a complex and relational process that constitutes part of a set of contemporary changes that have occurred in the nature, organization, and quality of work.

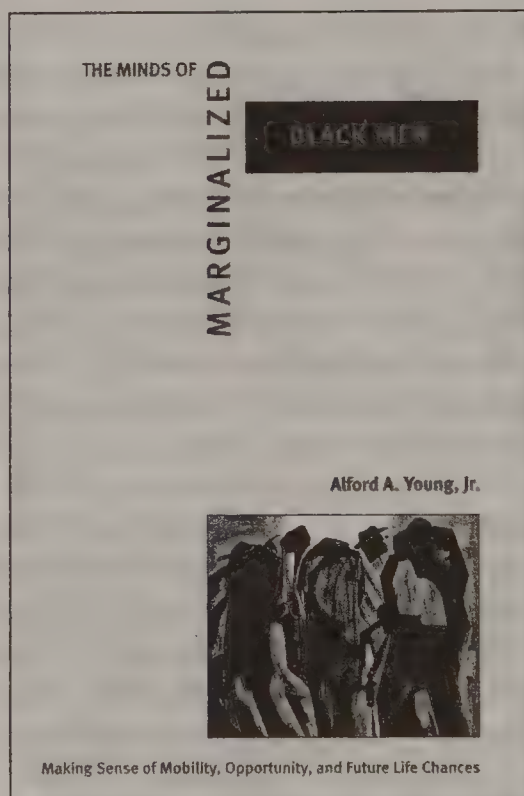
In spite of this criticism, I found *Downsizing in America* to be a very useful resource for anyone especially interested in the causes of downsizing, as well as in its consequences. It constitutes a major contribution to social scientific knowledge and understanding of job loss. The book succeeds in many ways in convincing the reader that, contrary to popular belief, “downsizing is not merely a matter of a large number of firms reducing their labor forces substantially and thereby emerging ‘leaner and meaner.’”

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Statement of Ownership, Management, and Circulation

1. Publication Title SGCIAL FORCES				2. Publication Number 0 0 3 7 - 7 7 3 2				3. Filing Date 09/17/04	
4. Issue Frequency Quarterly (Sept, Dec, March, June)				5. Number of Issues Published Annually 4				6. Annual Subscription Price \$50.00 individuals \$82.00 institutions	
7. Complete Mailing Address of Known Office of Publication (Not printer) (Street, city, county, state, and ZIP+4) UNC-CH Institute for Research in the Social Sciences, 05 Manning Hall, CB#3355, Chapel Hill, Orange County, NC 27599-3355								Contact Person Suzi Waters	
								Telephone 919-966-3561	
8. Complete Mailing Address of Headquarters or General Business Office of Publisher (Not printer) The University of North Carolina Press, 116 South Boundary St, PO Box 2288, Chapel Hill, Orange County, NC 27515-2288									
9. Full Names and Complete Mailing Addresses of Publisher, Editor, and Managing Editor (Do not leave blank)									
Publisher (Name and complete mailing address) The University of North Carolina Press, 116 South Boundary St, PO Box 2288, Chapel Hill, Orange County, NC 27515-2288									
Editor (Name and complete mailing address) Richard L Simpson & Judith Blau, UNC-CH Sociology Department, 266 Hamilton Hall, CB#3210 Chapel Hill, Orange County, NC 27599-3210									
Managing Editor (Name and complete mailing address) Paul Mihas, UNC-CH Institute for Research in Social Science, 05 Manning Hall, CB#3355 Chapel Hill, Orange County, NC 27599-3355									
10. Owner (Do not leave blank. If the publication is owned by a corporation, give the name and address of the corporation immediately followed by the names and addresses of all stockholders owning or holding 1 percent or more of the total amount of stock. If not owned by a corporation, give the names and addresses of the individual owners. If owned by a partnership or other unincorporated firm, give its name and address as well as those of each individual owner. If the publication is published by a nonprofit organization, give its name and address.)									
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11. Known Bondholders, Mortgagees, and Other Security Holders Owning or Holding 1 Percent or More of Total Amount of Bonds, Mortgages, or Other Securities. If none, check box <input checked="" type="checkbox"/> None									
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12. Tax Status (For completion by nonprofit organizations authorized to mail at nonprofit rates) (Check one) The purpose, function, and nonprofit status of this organization and the exempt status for federal income tax purposes: <input type="checkbox"/> Has Not Changed During Preceding 12 Months <input type="checkbox"/> Has Changed During Preceding 12 Months (Publisher must submit explanation of change with this statement)									

13. Publication Title
Social Forces

14. Issue Date for Circulation Data Below

June 2004 82#4

June 25, 2004

15. Extent and Nature of Circulation		Average No. Copies Each Issue During Preceding 12 Months	No. Copies of Single Issue Published Nearest to Filing Date
a. Total Number of Copies (Net press run)		3425	3300
b. Paid and/or Requested Circulation	(1) Paid/Requested Outside-County Mail Subscriptions Stated on Form 3541. (Include advertiser's proof and exchange copies)	2735	2893
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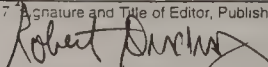
16. Publication of Statement of Ownership

☒ Publication required. Will be printed in the December 2004 issue of this publication.

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17. Signature and Title of Editor, Publisher, Business Manager, or Owner

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 **ASSOCIATE DIRECTOR & CFO**
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09/17/04

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(The Social Science Journal of the University of the West Indies)

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